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GENERALLY BASED MOBILITY-TERRAIN DATA BASES(II)
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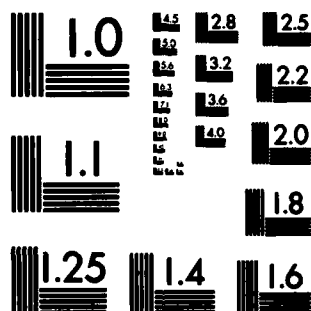
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Generically Based Mobility-Terrain Data Bases

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Generically Based Mobility-Terrain Data Bases

Final Report

by

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March 1986

United States Army

EUROPEAN RESEARCH OFFICE OF THE U.S. ARMY

London, England

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FOREWORD

The study reported herein was conducted by Battelle-Institut (BF) Frankfurt, FRG, Vehicle Technology Department on behalf of the US Army Engineer Waterways Experiment Station, CE, Vicksburg, Mississippi, under a contract from the US Army European Research Office, London. It is part of joint efforts by WES and BF to evaluate and improve the reliability of existing terrain data acquisition methods as well as new modeling approaches for generically based mobility terrain data bases.

The personnel acquiring the various field data included: P. Jessl, P. Corvin, G. Karsubka and F. Rischbieter, Vehicle Technology Department (BF). Data reduction and software development for various data evaluation procedures were under the responsibility of W. Resch and P. Corvin. The report was written by P. Jessl, W. Köppel and W. Resch. W. Köppel was the principal investigator.

ABSTRACT

This report contains an analysis of standard and advanced terrain data acquisition techniques for areal mobility evaluations. In detail, generic terrain descriptors for FRG terrain conditions were investigated for a total of 35 cell areas.

Relations among soil dynamic parameters and conventional mobility index numbers were analyzed for a total of 23 sites. Relationship between cone index field data and computer model data was investigated for a total of 19 sites.

Key words:

Mobility

Generic

Terrain data

PART I: INTRODUCTION

Background

Mobility evaluation of vehicles within the European theater of operations calls for identification of representative operational areas of terrain. Through such terrain areas which are characterized in terms of mobility terrain descriptors, large-scale mobility quantifications can be made possible by means of available and future standard mobility terrain data bases at 1 : 50.000 scale. Generally it is aimed to quantify vehicle mobility across large operational areas at considerably reduced cost involved. In order to achieve these goals WES has been investigating since 1983 a generic mobility-terrain description approach/procedure which identifies suitable small areas that are representative of large areas subject to mobility evaluation needs.

Purpose and Scope

The purpose of the study was to evaluate the reliability of the generics approach by detailed field examination of terrain data as well as in particular to determine critical soil parameters. The latter were subject to detailed comparative analysis in order to allow for future extension of existing conventional soil parameter data bases towards soil dynamic parameter description which are required to drive advanced mobility models or submodels /1/.

Part II: METHOD OF ASSEMBLING GENERICALLY
BASED MOBILITY TERRAIN DATA BASES

Selection of Quadrangle Sheets

A total of 35 terrain sample cells of 10x10 km quadrangle size were selected by Battelle/WES within the FRG. These cells were identifying the most, medium and least representatives of a particular generic region which was determined by ^{these} ~~the~~ factors:

- landform-topography;
- Natick slopes;
- average temperature/January; *and*
- mean value of annual rainfall.

The cell characteristics were based on the following terrain factors:

- USCS soil type;
- agricultural land use;
- forest type;
- vegetation cover, *and*
- geology rock type .

The representativity was tested by WES by means of a chi-square test of observed and expected (modeled) factor values. Thus, the above ranking of quality of fit was performed in order to quantify which factor classes best fit the distribution for each region out of the six regarded here. For the purpose of identifying the most, the medium and least representative cell elements as a composite result of all five terrain factors, WES pre-established weighting factors for the terrain factors reflecting their influence on a vehicle's mobility:

- soil (weighting factor 4)
- land use (3)
- forest type (2)
- vegetation cover (1)
- geology (1)

The distribution of the sampling cells to be visited is shown in figure 1. The generic regions involved which were identified as essential for the evaluation and reliability test of generic descriptors were the following:

- region 1 (10 cells selected)
- region 2 (5)
- region 6 (5)
- region 21 (4)
- region 26 (4)
- region 48 (10)

The number of cells visited for each region is given in parentheses.

Acquisition and Analysis of Terrain Data and Evaluation of Generics Descriptors

Within the 35 cells a suitable number of sites - usually a dozen of locations - was visited in order to determine quantitative terrain data compatible with the Army Mobility Model, (AMM) format. Areal photographs were acquired in order to support the vegetation, forest and land-use distributional characteristics. As a general qualitative result of these detailed data acquisition campaign, it can be concluded that the WES regionalization concept basically reflects the terrain conditions met on the ground. However, the detailed WES analyses on vehicle performance predictions for various wheeled and tracked vehicles and soil strength conditions revealed some need for readjusting the Natick slope description currently applied.

It was also observed in the field that the scattered occurrences of terrain features like sand dunes and hedgerows within regions 1 and 2 need to be regarded as major characteristics of areal terrain encountered in the Northern Plains of the FRG heavily influencing a vehicle's mobility. The large size drainage ditches (top widths of 12', bank heights of 3-4', water depths of 1.5', and bottom widths of 3' at average) considerable impede mobility of both wheeled and tracked vehicles and need to be regarded as a basic terrain feature of these regions in the Northern Plains.

PART III: RELIABILITY OF GENERICALLY-BASED MOBILITY/TERRAIN DATA BASES

Site Selection

A total of 23 sites were identified as being critical to vehicle mobility within the above defined 35 cell areas visited. Selection was based on field experience and subjective criteria within the above mentioned six generic regions. Site characteristics are shown in table 1 including soil types and cone index values obtained for two wet seasonal periods in October 1984 and May 1985. Soil types involved were mainly fine grained and organic ones with cone index values averaging 60-70 psi for the first 6"-layer at the above mentioned extremely wet/low strength boundary conditions.

These sites were also a subset of those to be investigated by means of soil dynamic parameters (cp. Part IV) and provide a basis for any future cone index, remolding index and shear box data reduction. The meteorological data conditions are fully described through long range observations of all relevant climatological data for the nearest weather stations available at each site (see tables 2 - 6).

Analysis of Critical Site Conditions and Terrain Factor Data

From the above AMM terrain data, the meteorological and climatological data as well as various terrain classification products from German barrier team field work (e.g waterway-folio) a full-scale environmental site description is available for the critical sites.

Taking into account the remolding index values determined during the transitional period of May 85 average rating cone index of 38 psi were observed at the 23 sites with a range of 9 - 82 psi and 10 sites showing RCI < 30 psi. These conditions are extremely critical to MBT performance and also APC manoevers if multipass traffic is assumed.

Comparisons for the soil strength data - which is the most critical terrain factor descriptor - at these sites selected yield good results if they are applied in a regional mode:

Evaluating strength data (cone index and rating cone index) for identical generic regions but different quad sheet areas shows good correspondence at least for such sites exhibiting identical soil types (OH and CL soils) within regions 1, 21, 26 and 48 (see table 1).

It is recommendable to complete the sample size of these sites in two ways:

- extension of time series for given sites
- extension of sample size for given soil types.

Thus, it can be envisaged in combination with the soil dynamic parameter determination (see below/Part IV) to establish a critical site terrain data base.

PART IV: RELATIONS AMONG SOIL DYNAMIC PARAMETERS AND CONVENTIONAL MOBILITY INDEX NUMBERS

Site Selection

A total of 35 sites within regions 1, 2, 6, 21, 26 and 48 were selected based on the availability of sufficiently different soil types within the fine-grained range as well as organics (see table 7). Site selection was primarily designed that - if accessible - locations were in coincidence with those locations having been visited earlier. Thus, a continuous recording of conventional and dynamic soil parameters can be ensured for varying seasonal environmental conditions.

Measurements of Soil Engineering Properties

The above sites were visited during extremely wet seasonal conditions in April/May 1985 (tables 1 and 7) ensuring real worst case soil strengths. At each site the following soil parameters were investigated

- o field soil type
- o cone index 0 - 24"
- o remolding index 0 - 12"
- o bulk sample for determining
 - oo Atterberg limits
 - oo moisture content
 - oo grain-size distribution curve
 - oo dry and wet densities
 - oo soil type determination (USCS)

In addition to that, at 23 out of 35 sites direct shear tests were conducted with a WES shear device. Direct shear tests were conducted by using normal loads of 8,89.6 and 180 lbs. corresponding to normal stresses of 0.5, 5.6 and 11.25 psi, respectively. Fig. 2a shows a typical load - deformation curve obtained from a field test. Test data were shown by an x-y plot directly in the field as well as digitally recorded by a digital-signal analyzer (DSA) (see Fig. 3). A series of at least three or more tests (for each normal load applied) is required in order to obtain reproducible results for the soil parameters to be quantified. Thus, a quick in-situ control of each test's reliability is possible. The soil parameters to be determined are

- initial shear stiffness G, psi/in
- cohesion c, psi
- friction angle ϕ , deg.

Data Evaluation

The initial slope of each load vs. deflection curve defines initial shear stiffness G of the sample, while the peak stress obtained defines the maximum shear stress. Deflection at peak stress related to time defines the deflection rate.

For each site a shear stress vs. normal stress plot is generated (see Fig. 2b) based on all tests performed at a site (see table 8). Determination of cohesion c and friction angle ϕ was done by means of mean values of the various normal loads applied for each test; c is defined as the point of intersection of the τ - σ curve with the ordinate at $\sigma = 0$ while ϕ is defined as the gradient at maximum normal load or stress (180 lbs/11.25 psi).

It has to be mentioned that the determination of G , c and ϕ was not made through a computerized data evaluation due to various reasons: The initial slope e.g. could not be calculated automatically because the digitized values were overlayed by some oscillation, probably caused by frictional influence between upper and lower part of the shear box at the beginning of the deformation process.

Also c and ϕ did not allow for computerized evaluation as the different test results were remarkably deviating in many tests and because only three normal loads were available as discrete values for a tentative curve fit. Therefore, future test series should be designed with 5 normal loading conditions at least (0.5, 2.5, 6.0, 10.0 and 14.0 psi for example).

Investigation into the Relationship between Cone Index and Shear Box Data

Correlation of shear stress data with conventional mobility index numbers, i.e. cone index and rating cone index data was investigated for 23 out of the 35 sites visited.

Correlations were basically intended to be made while keeping the following parameters constant

- soil type (Pt; OH; CL; ML and SM)
(see figs. 4 to 33)
- moisture content (20-50%, 50-70%,
70-100%, > 100%) (see figs. 34 to 57)
- organic ingredients (5-10%, 10-20%, > 20%)
(see figs. 58 to 75)
- plasticity (0-20%, 20-50%, > 50%)
(see figs. 70 to 93)

Classes for the above parameters were chosen based on pragmatic criteria as to allow for sufficient sample size at each site.

For all correlations established the normal stresses were kept constant, too.

$$\sigma = \text{const. (0.5, 5.6, 11.25 psi)}$$

All correlations were done in a linear mode. The mean values of the correlation coefficients r_i for the basic soil parameters above are comprehensively shown in table 9. Some of the conclusions to be drawn out of these data are

- a correlation of all soil types encountered obviously does not make much sense. Fine grained soils exclusively (CL, ML, OH) yield good to very good correlation results.
- generally, moisture content and plasticity provide best correlation coefficients; however, low normal load created problems for plasticity results.
- also organic ingredients showed some good correspondence if rating cone index was addressed; again, low normal stresses (0.5 psi) needed to be excluded here.

In fact, negative correlation coefficients were also occurring; this was due to the lack of sufficient sample size accompanied by extremely large deviations. Negative coefficients were not regarded during the establishment of mean values in table 9.

Based on the assumption that correlation coefficients of $0.6 \leq r \leq 0.8$ represent high accuracy of shear stress vs. cone index and $0.8 \leq r \leq 1$ represents extremely high accuracy it can be concluded that moisture content is the most reliable, load independent descriptor for establishing relationships between conventional mobility index numbers and soil dynamic parameters. Plasticity also shows very good results if the lowest normal loads are neglected.

Investigation into the Relationship Between Field Cone Index Data and Computer Generated Data

Based on a WES mathematical model /2/ that is treating cone penetration as expansion of a series of spherical cavities in an elastic-plastic isotropic medium cone index values were generated and compared with field cone index data at the above mentioned sites.

The analytical predictions with the cone model are based on a standard WES cone penetrometer with a 30-degree, right-circular cone of 0.5 in² base area.

Soil input data to the model are

- cohesion c
- friction angle ϕ
- initial shear modulus G and
- bulk density

The determination of the initial shear modulus created some problems as already outlined before. For the comparative evaluation of field and model cone index data here the mean value of G was determined based on normal stress conditions of $\sigma' = 5.6$ psi and $\sigma' = 11.25$ psi. The stress condition $\sigma' = 0.5$ psi did not allow for reliable data reduction and was neglected therefore.

Taking into account the depth of the shear plane of the shear box tests which was predominantly 4" the same depth of 4" was regarded

for the cone prediction, as well as a range of 3-5" for averaging cone index values across a small depth band to take care of potential outliers.

Table 10 shows the comprehensive results for 19 sites considered. It needs to be mentioned that deviations of less than 10% were observed in 11 out of 19 cases. Plots of cone index vs. depth are given in correspondence to table 10 in figs. 94 to 119. Here, the soil profile was organized in 4 layers for site numbers 1, 3, 9, 10, 11, 20, 27, 28, 34 and 35. Layer boundaries were subjectively introduced

where the last layer was based on assumed data in order to alleviate cone index increase beyond 6" with increasing depth in case of a normal strength profile. Density of each layer was kept constant. Variation of c and ϕ was marginally done based on the numerous test results obtained from the shear tests; table 10 shows all corresponding mean values while figs. 94 to 119 give the evaluation results.

It can be concluded that the cone prediction model yielded results which are in good agreement with the measured field data at the various sites visited.

PART V: CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on the results of the numerous field data results obtained for the various regions within the FRG it can be concluded that the WES generically based mobility/terrain data approach proved to provide reliable data for future tasks of mobility evaluations.

The survey on soil dynamic parameters and conventional cone index numbers reveals a good correspondence for the soils variety encountered with moisture content and plasticity for the fine grained soils standing as key parameters for establishing mutual correlations.

Recommendations

It is recommended to specifically ensure that the existing cone index terrain data bases for FRG terrain in detail are extended to be described in terms of soil dynamic parameters. The results of feasibility obtained from the limited number of sites in this study are extremely encouraging. Thus, a supplementary investigation of sites for varying environmental conditions - preferably including the worst wet-wet case - needs to be done in order to establish basic routines of translation and completion for soil dynamic parameter data to be inferred from conventional mobility index numbers.

LITERATURE CITED

- /1/ Rohani, B and Baladi, G.Y.: Steerability analysis of tracked vehicles on soft soil; theoretical predictions versus field measurements.
Technical Report GL-82-4, June 1982
USAE Waterways Experiment Station, Vicksburg, USA
- /2/ Rohani, B. and Baladi, G.Y.: Correlation of mobility cone index with fundamental engineering properties of soil
Misc.paper SL-81-4, April 1981
USAE Waterways Experiment Station, Vicksburg, USA

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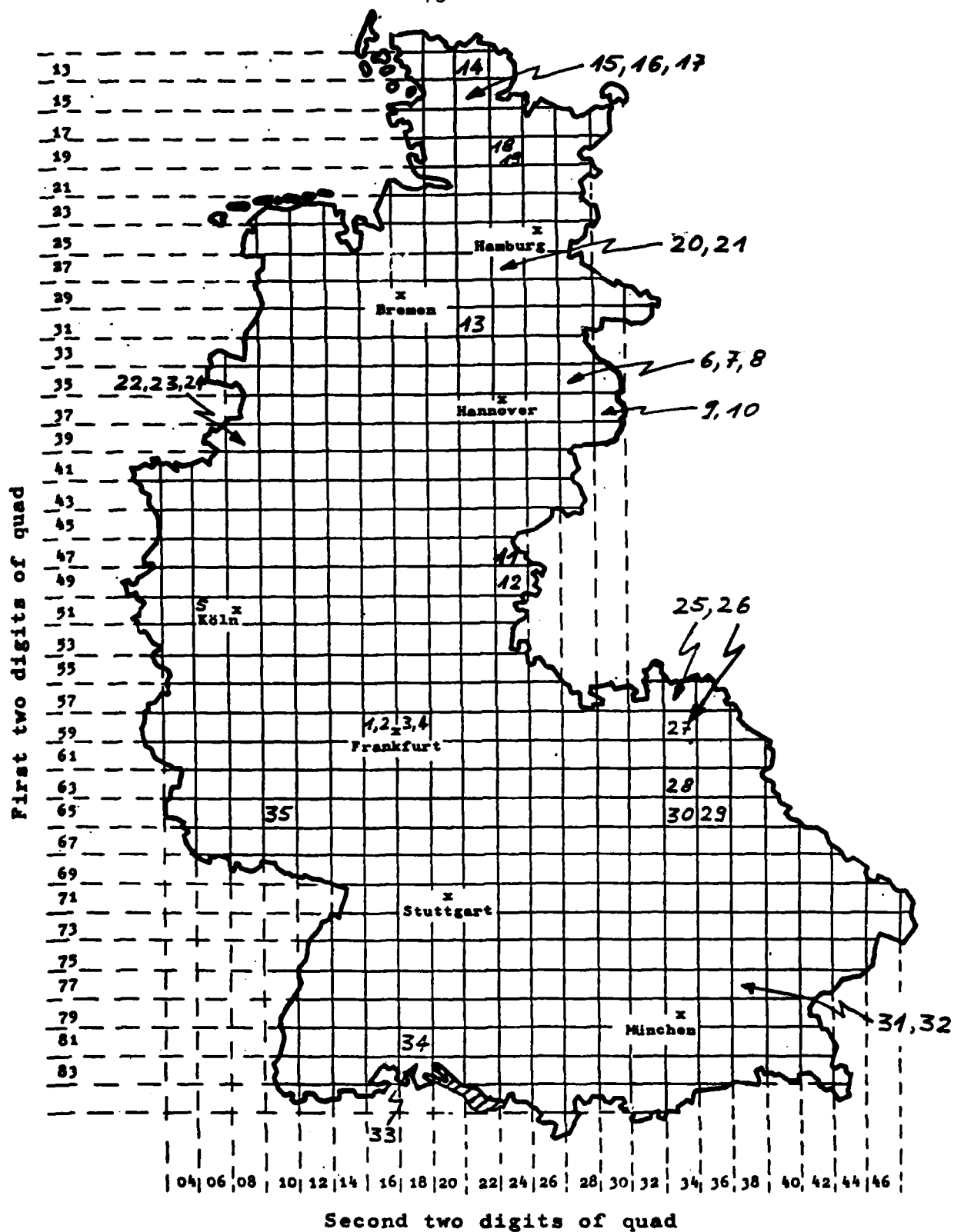


Fig. 1

Distribution of the 35 Sampling Cells Visited in the
FRG

INVESTIGATION OF CRITICAL SOIL PARAMETERS - APRIL - 1985 -

DIRECT SHEAR TESTS - TEST SITE - EDDERSHEIM - QUAD SHEET L 5916

SITE NO.: 1 GRID COORDINATES : 6050/4170

TEST NO: T144 DATA-FILE#: BODEN 3 69-70

TEST-TEAM : P.JESSL / P.CORVIN

INITIAL MODULUS RATE PEAK SHEAR LOAD PEAK SHEAR STRESS DISPL.AT PEAK

psi/inch	inch/s	lbs	psi	inch
127.29	1.34	42.63	2.7	.32

NORMAL LOAD NORMAL STRESS SAMPLE DEPTH

lbs	psi	inch
8.00	.50	4

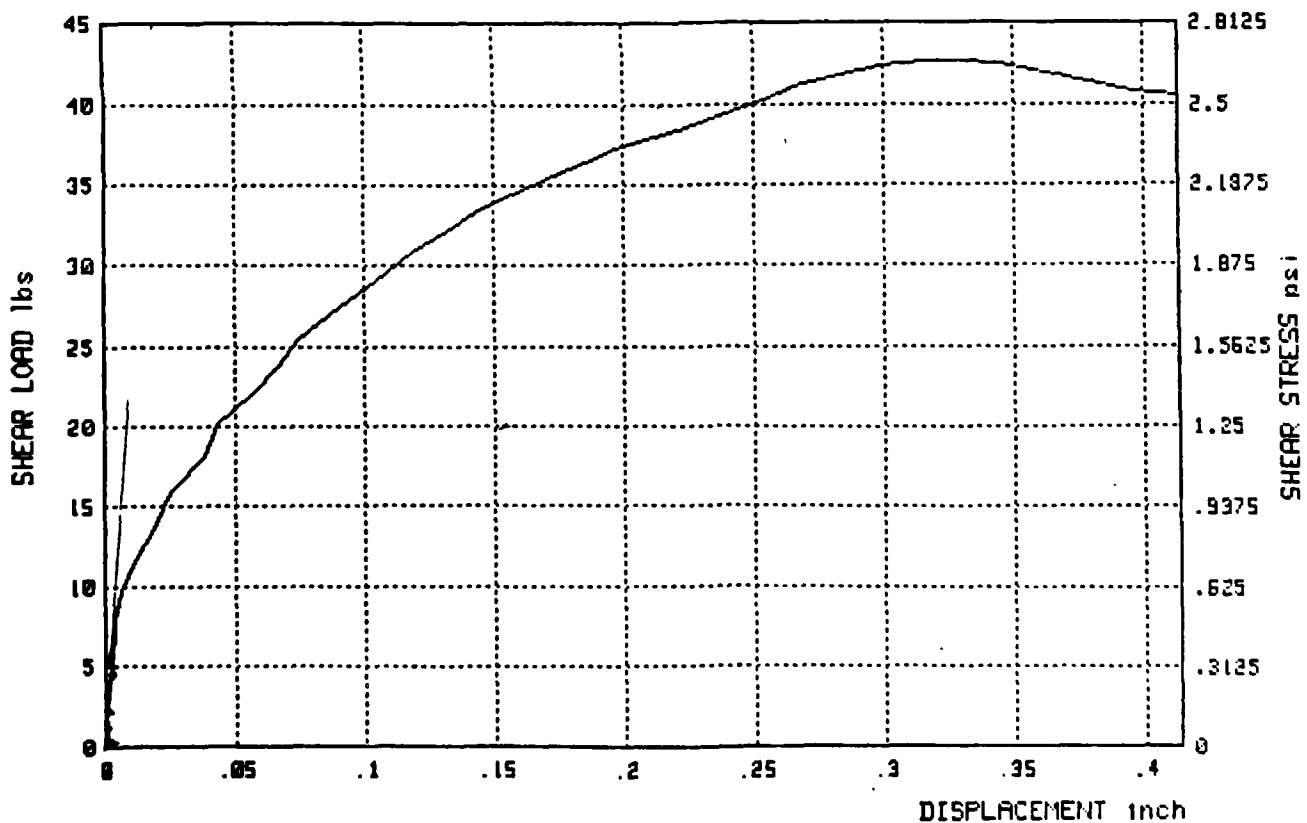


Fig. 2a Typical Shear Load-Deformation Curve Obtained at a Test Site

INVESTIGATION OF CRITICAL SOIL PARAMETERS - APRIL 1985 -

DIRECT SHEAR TESTS TEST SITE : - EDDERSHEIM - QUAD SHEET : L 5916

SITE NO.: 1 GRID COORDINATES : 6050/4170

TESTSERIES : 141-155 TEST-TEAM :- P.JESSL/P.CORVIN -

EVALUATION OF SOIL-PARAMETERS (C, FRICT. ANGLE PHI)

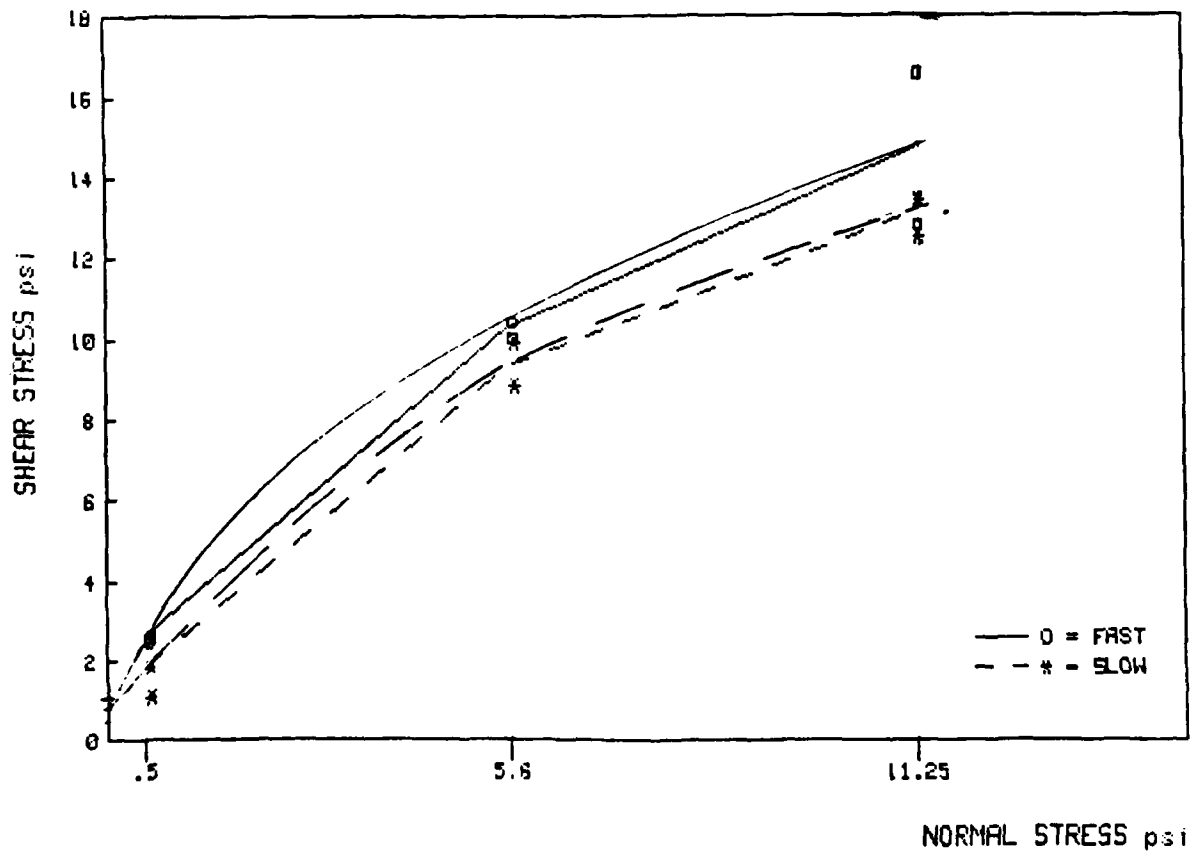


Fig. 2b

Typical Shear Stress vs. Normal Stress Curve Obtained
at a Test Site

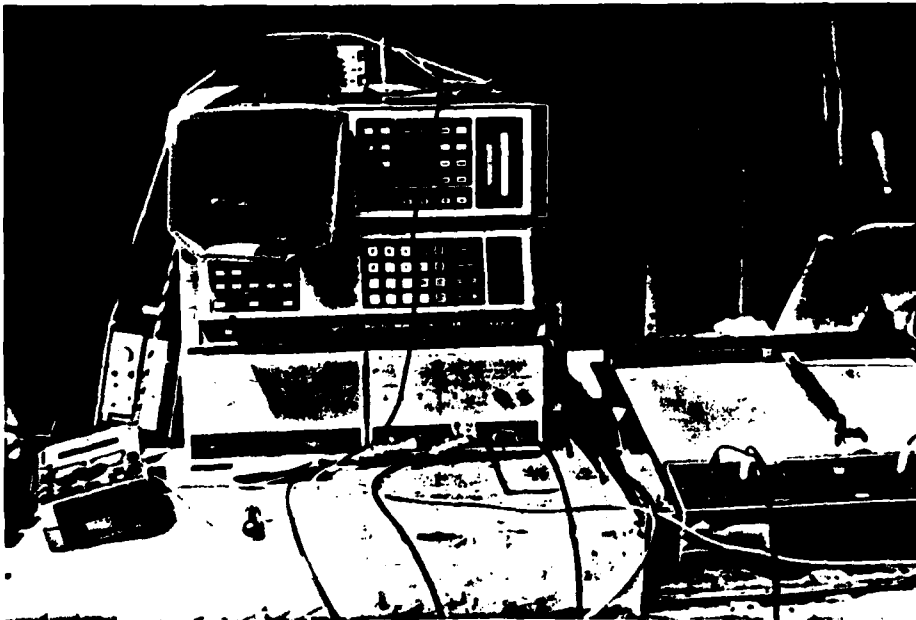


Fig. 3

View of the Mobile Shear Test Field Equipment Mounted
on a Van

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

6 7 8 13 19 21 35

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, SOIL TYPE: Pt

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 2.51$$

$$b = 2.7909E-02$$

CORRELATION COEFFICIENT

$$R = .3704$$

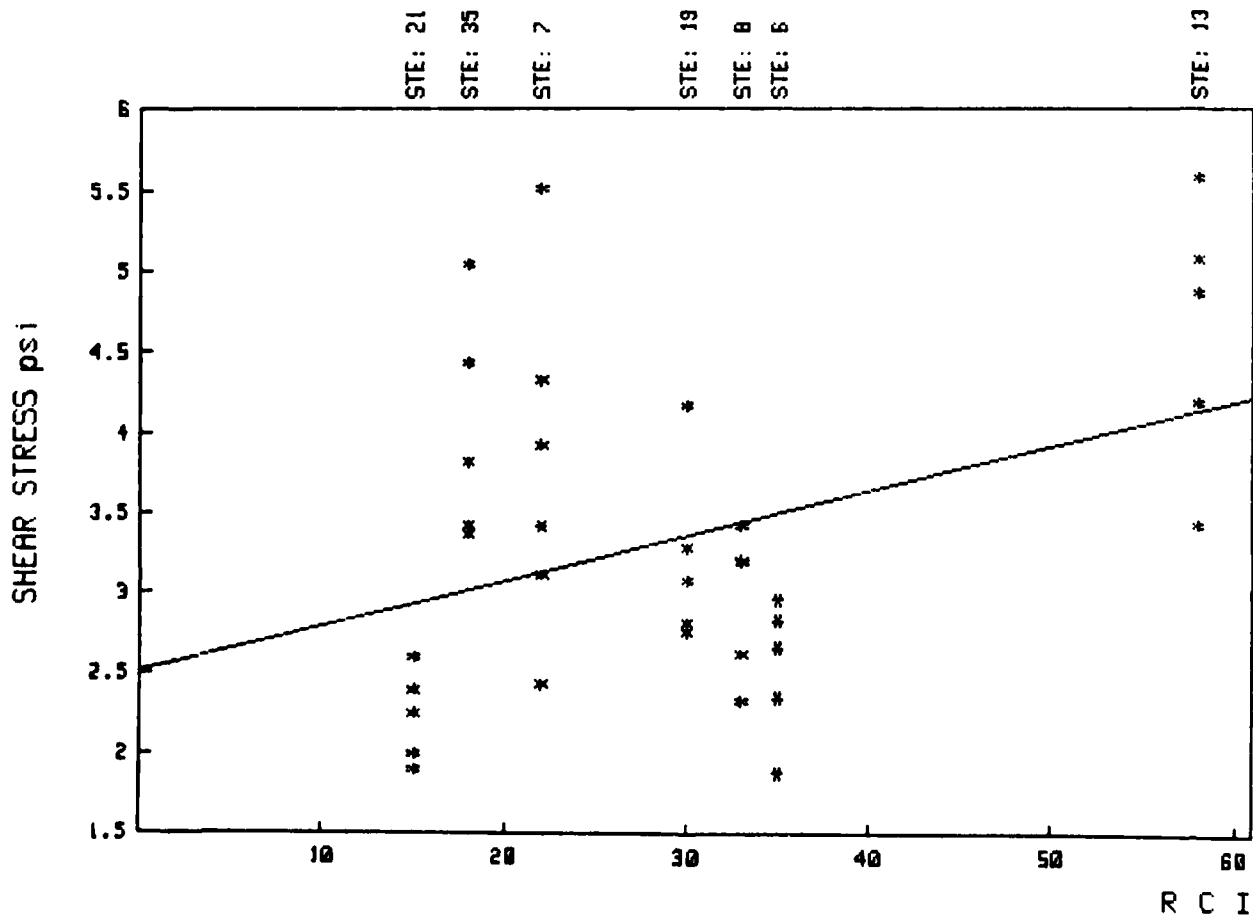


Fig. 4

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

6 7 8 13 19 21 35

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, SOIL TYPE: Pt

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 3.56$$

$$b = 1.2979E-01$$

CORRELATION COEFFICIENT

$$R = .6442$$

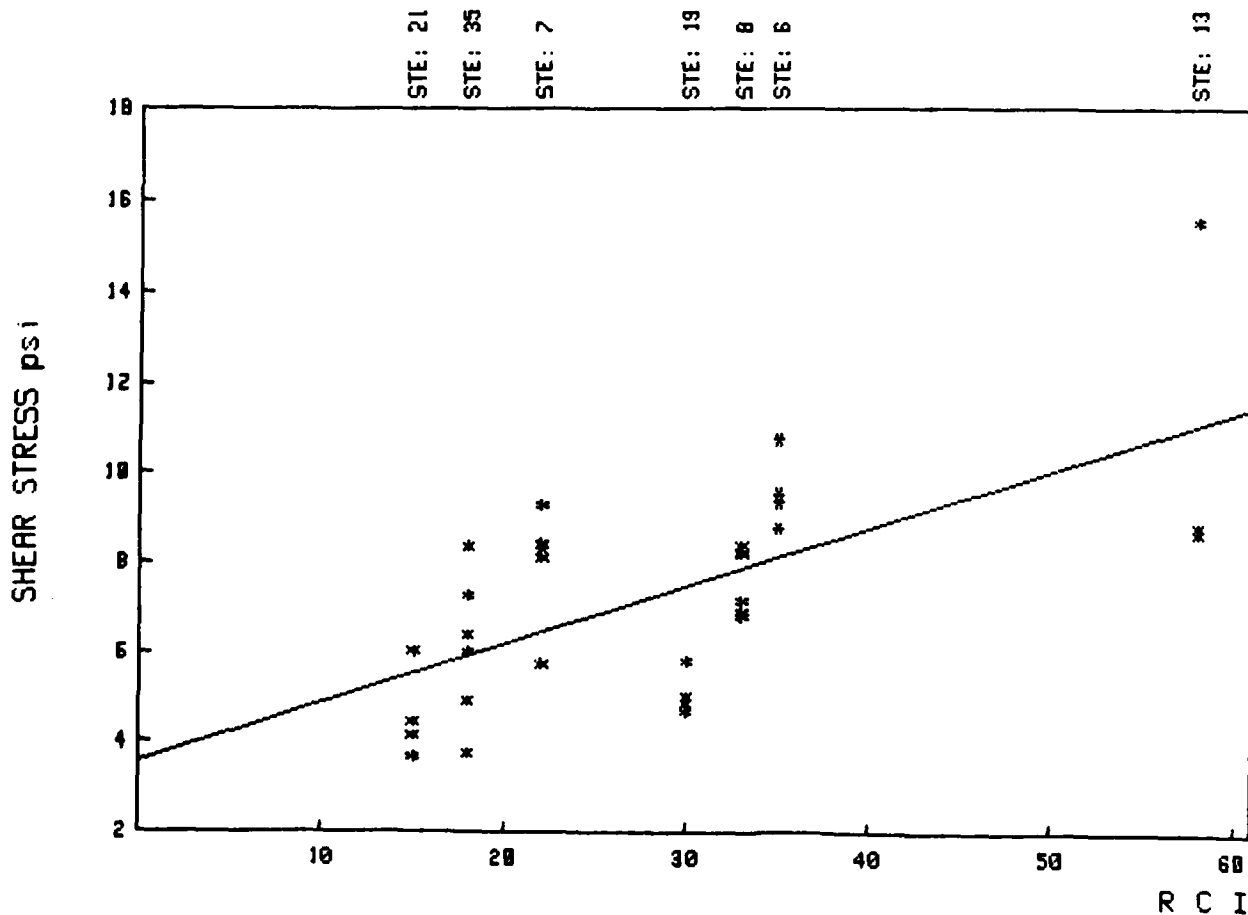


Fig. 5

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

6 7 8 13 19 21 35

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, SOIL TYPE: Pt

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 7.11$$

$$b = 6.3042E-02$$

CORRELATION COEFFICIENT

$$R = .3301$$

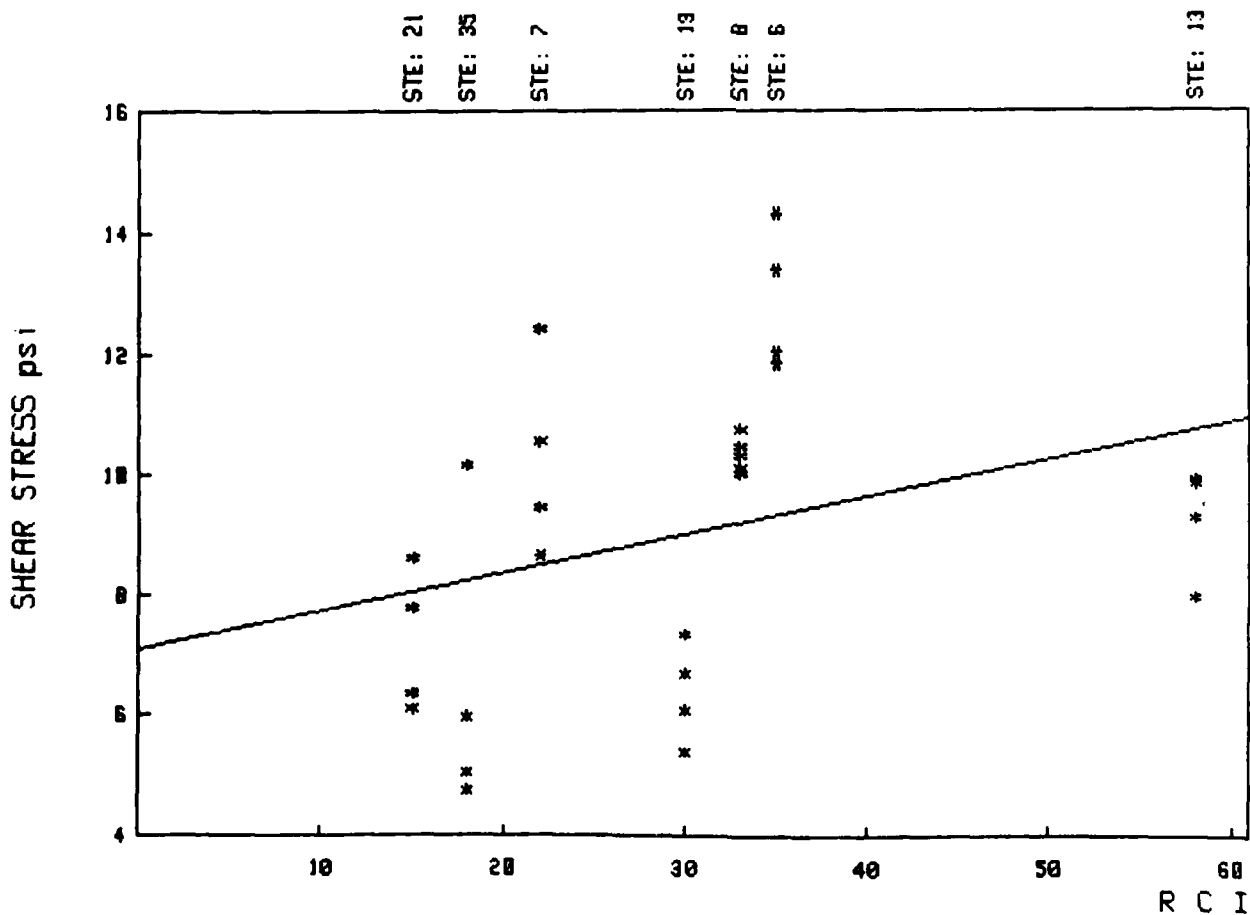


Fig. 6

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

6 7 8 13 19 21 35

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, SOIL TYPE: Pt

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 1.96$$

$$b = 2.6570E-02$$

CORRELATION COEFFICIENT

$$R = .4324$$

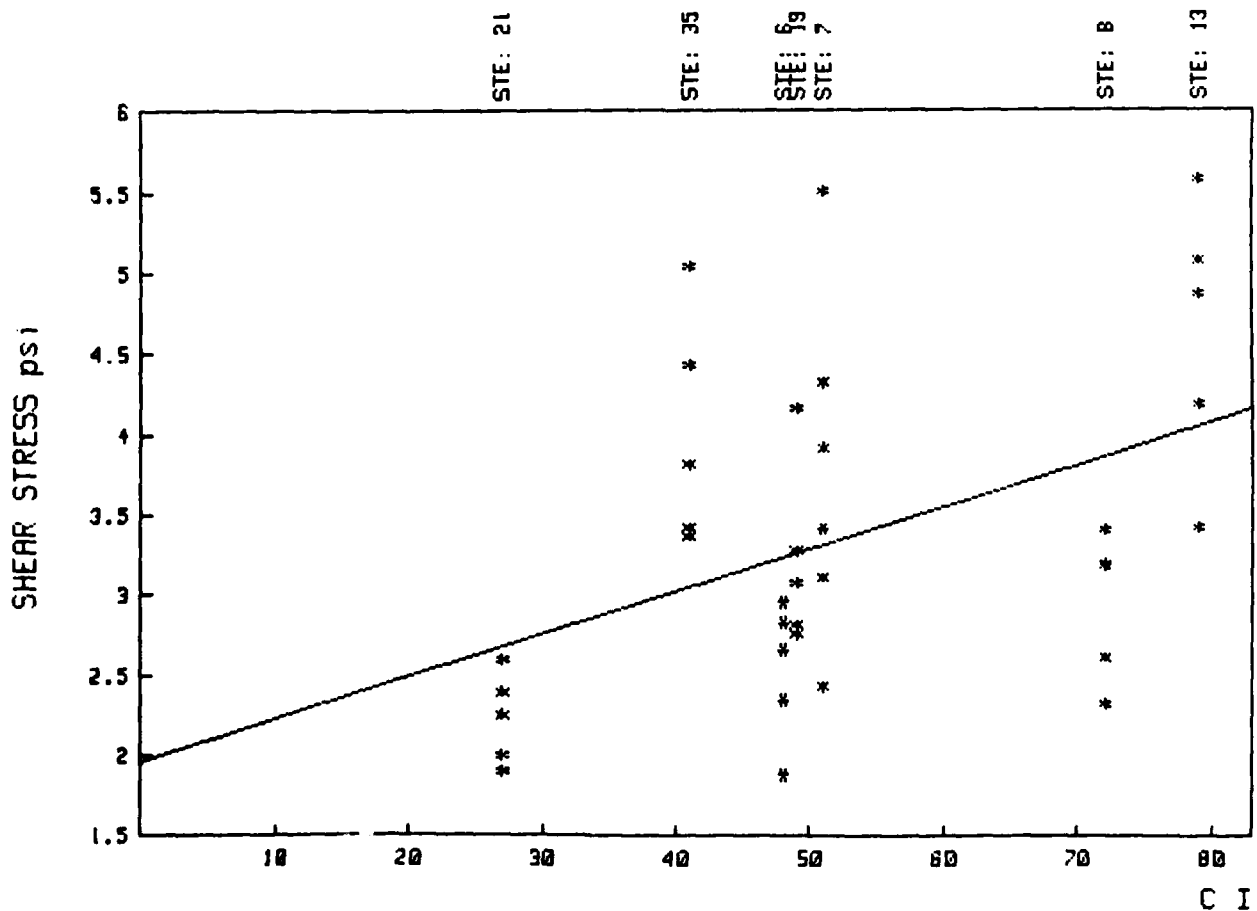


Fig. 7

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

6 7 8 13 19 21 35

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, SOIL TYPE: Pt

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 2.80$$

$$b = 8.5450E-02$$

CORRELATION COEFFICIENT

$$R = .5619$$

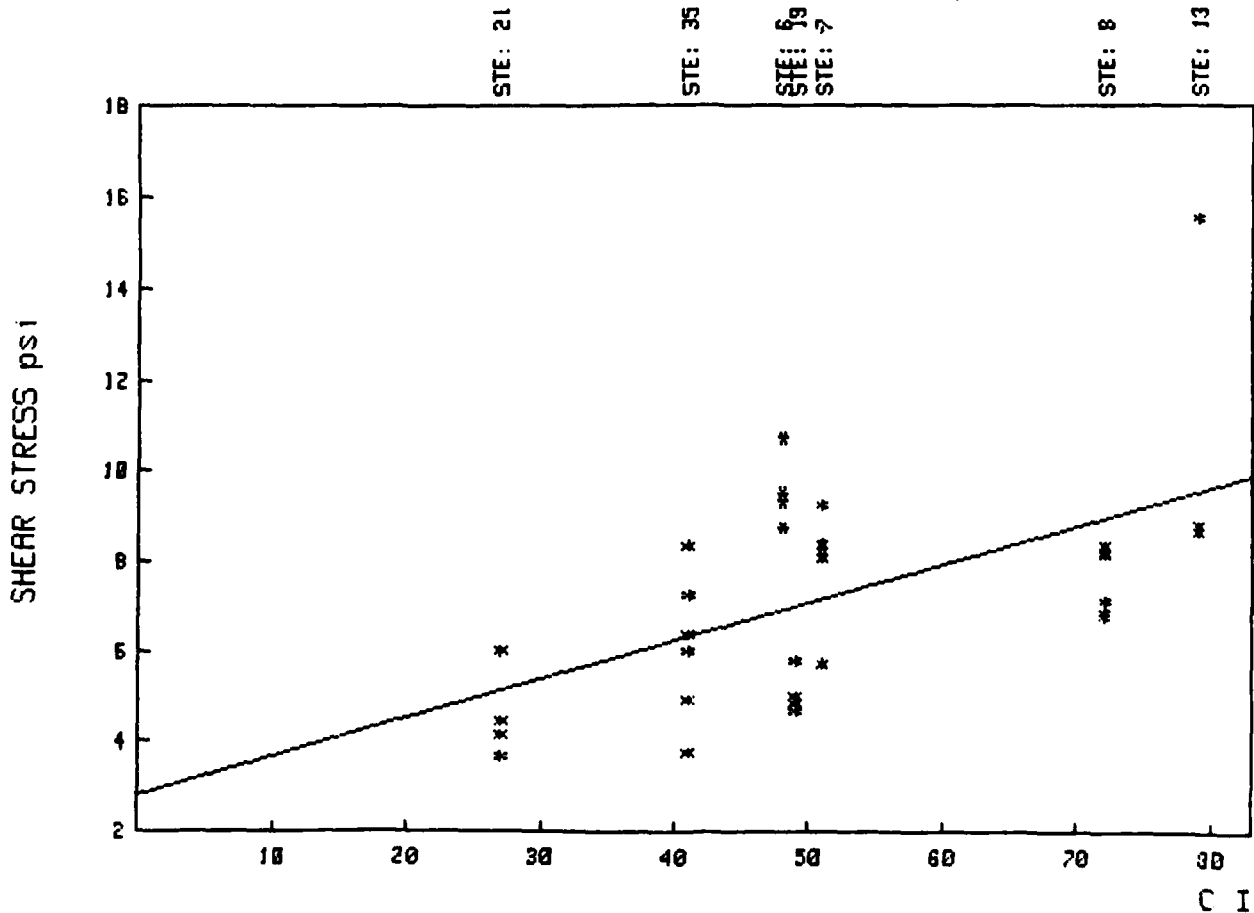


Fig. 8

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

6 7 8 13 19 21 35

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, SOIL TYPE: Pt

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 6.25$$

$$b = 5.2160E-02$$

CORRELATION COEFFICIENT

$$R = .3444$$

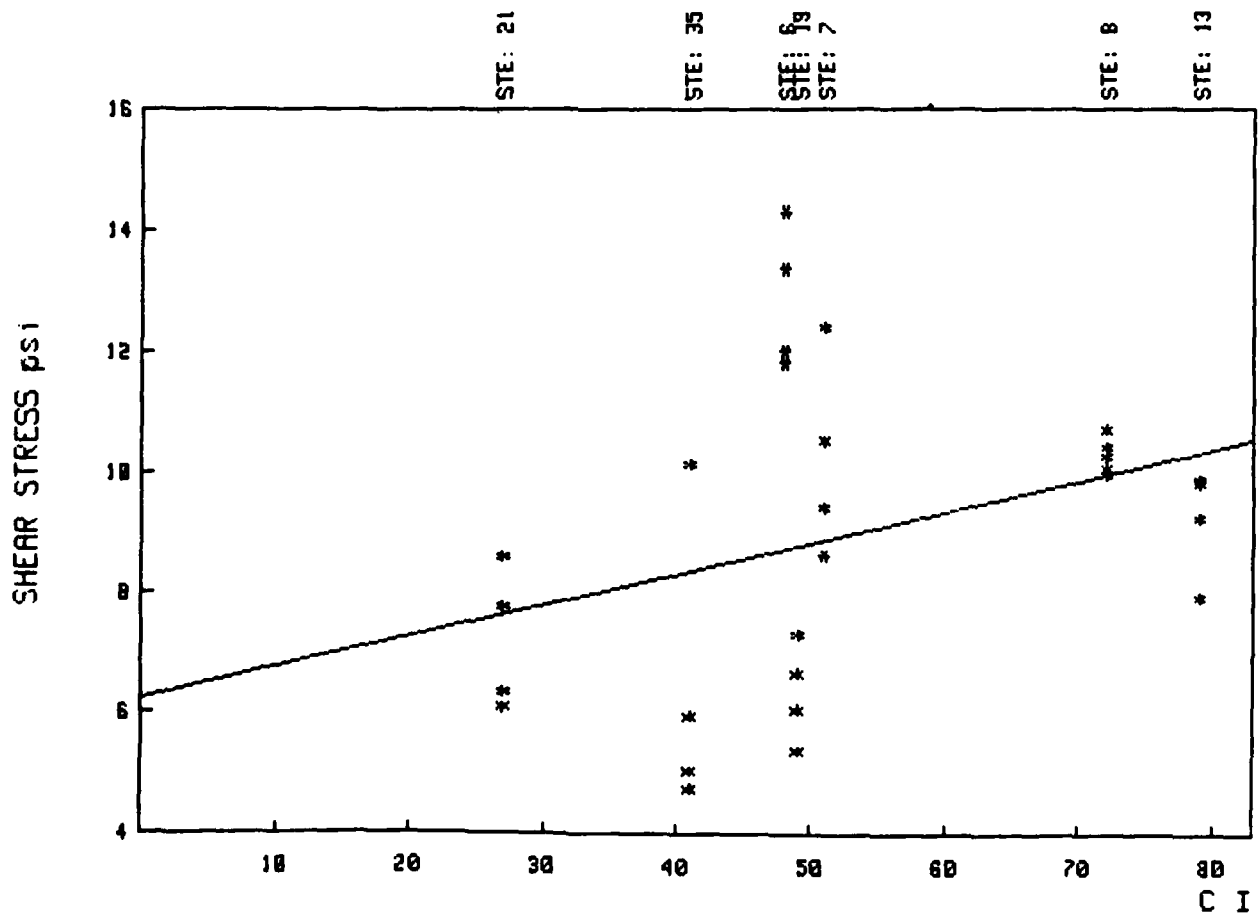


Fig. 9

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - APRIL 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

2 11

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, SOIL TYPE: CL

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 6.88$$

$$b = -1.5621E-02$$

CORRELATION COEFFICIENT

$$R = -.1022$$

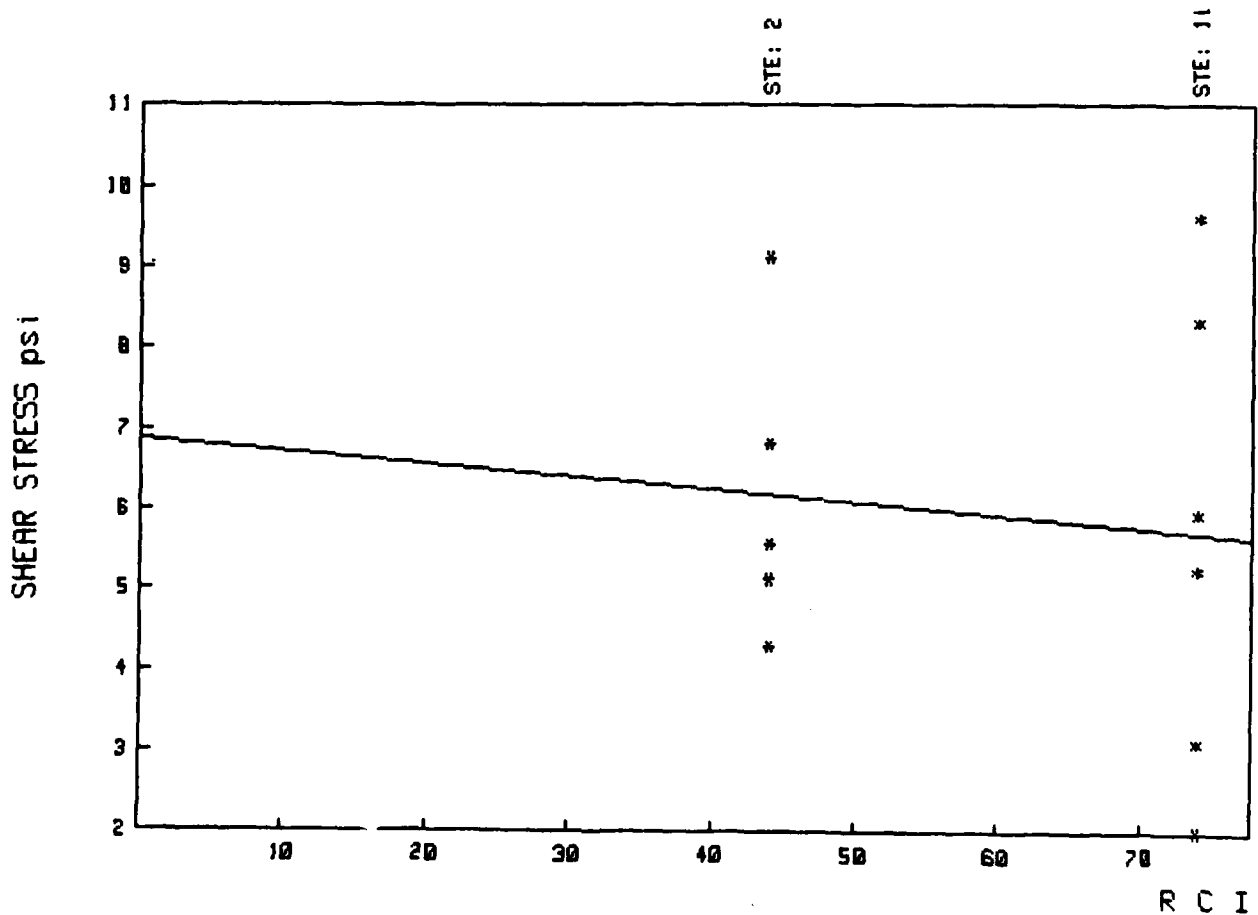


Fig. 10

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - APRIL 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

2 11

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, SOIL TYPE: CL

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 10.65$$

$$b = 3.5833E-02$$

CORRELATION COEFFICIENT

$$R = .4598$$

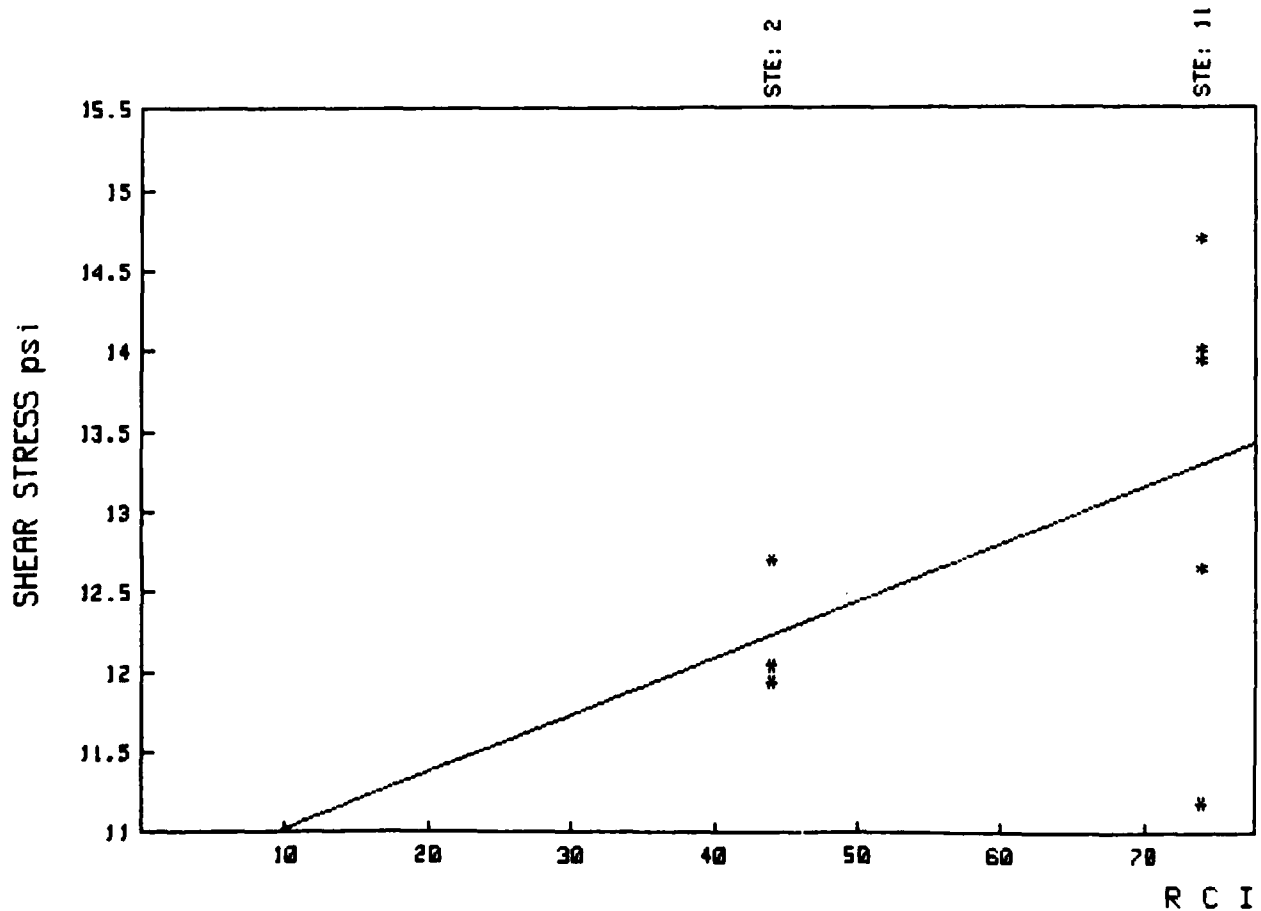


Fig. 11

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - APRIL 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

2 11

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, SOIL TYPE: CL

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 5.76$$

$$b = 1.4523E-01$$

CORRELATION COEFFICIENT

$$R = .8509$$

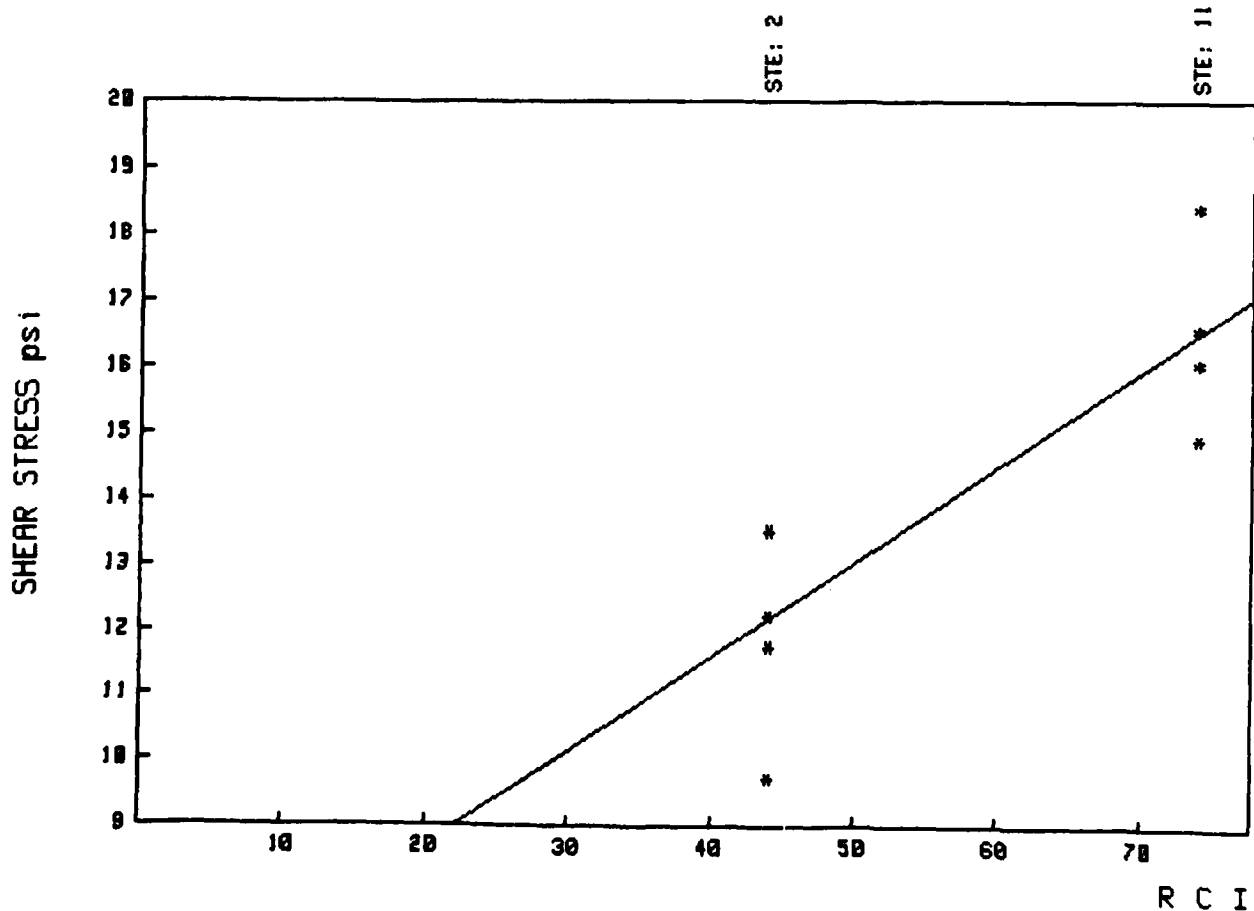


Fig. 12

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - APRIL 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

2 11

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, SOIL TYPE: CL

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 7.18$$

$$b = -1.6737E-02$$

CORRELATION COEFFICIENT

$$R = -.1022$$

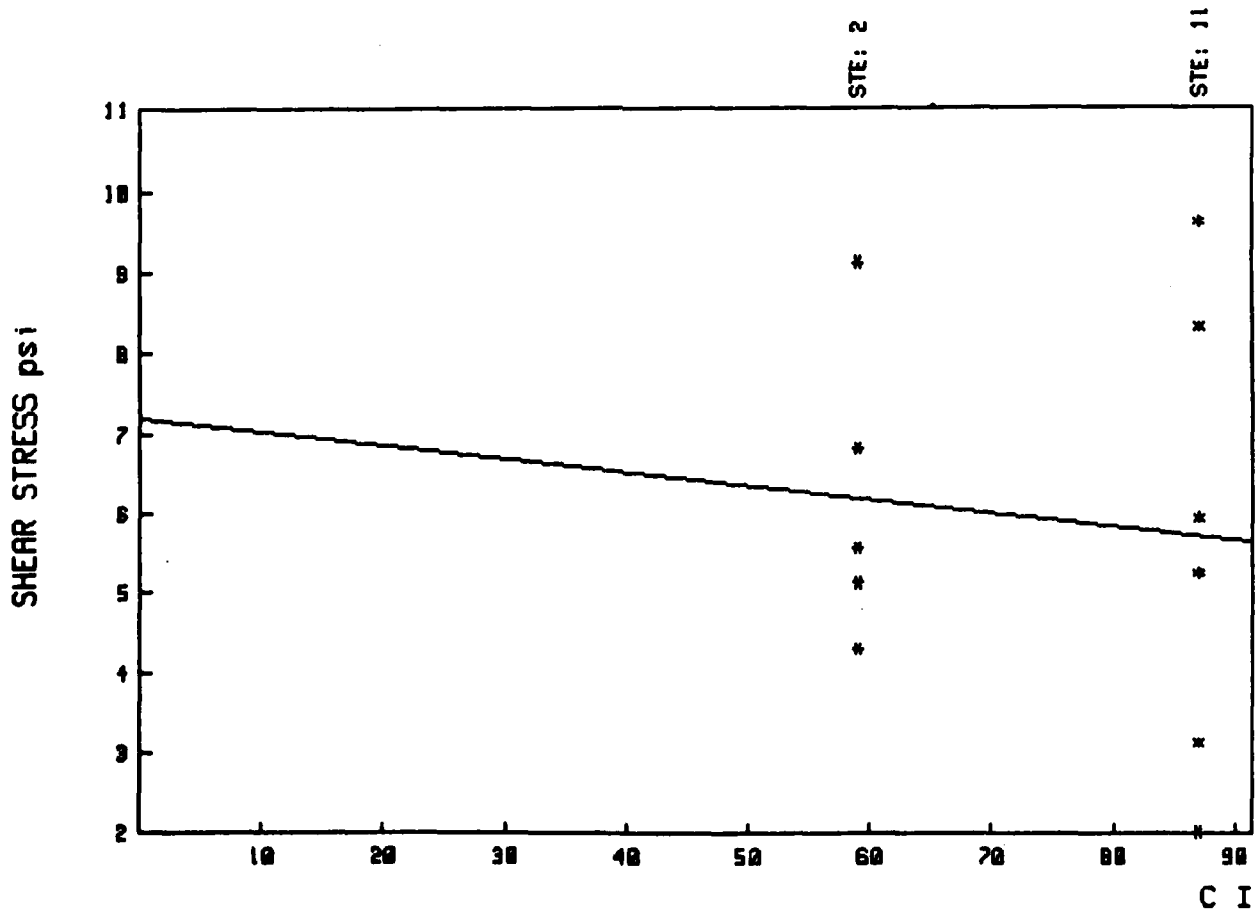


Fig. 13

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - APRIL 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

2 11

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, SOIL TYPE: CL

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 9.96$$

$$b = 3.8392E-02$$

CORRELATION COEFFICIENT

$$R = .4598$$

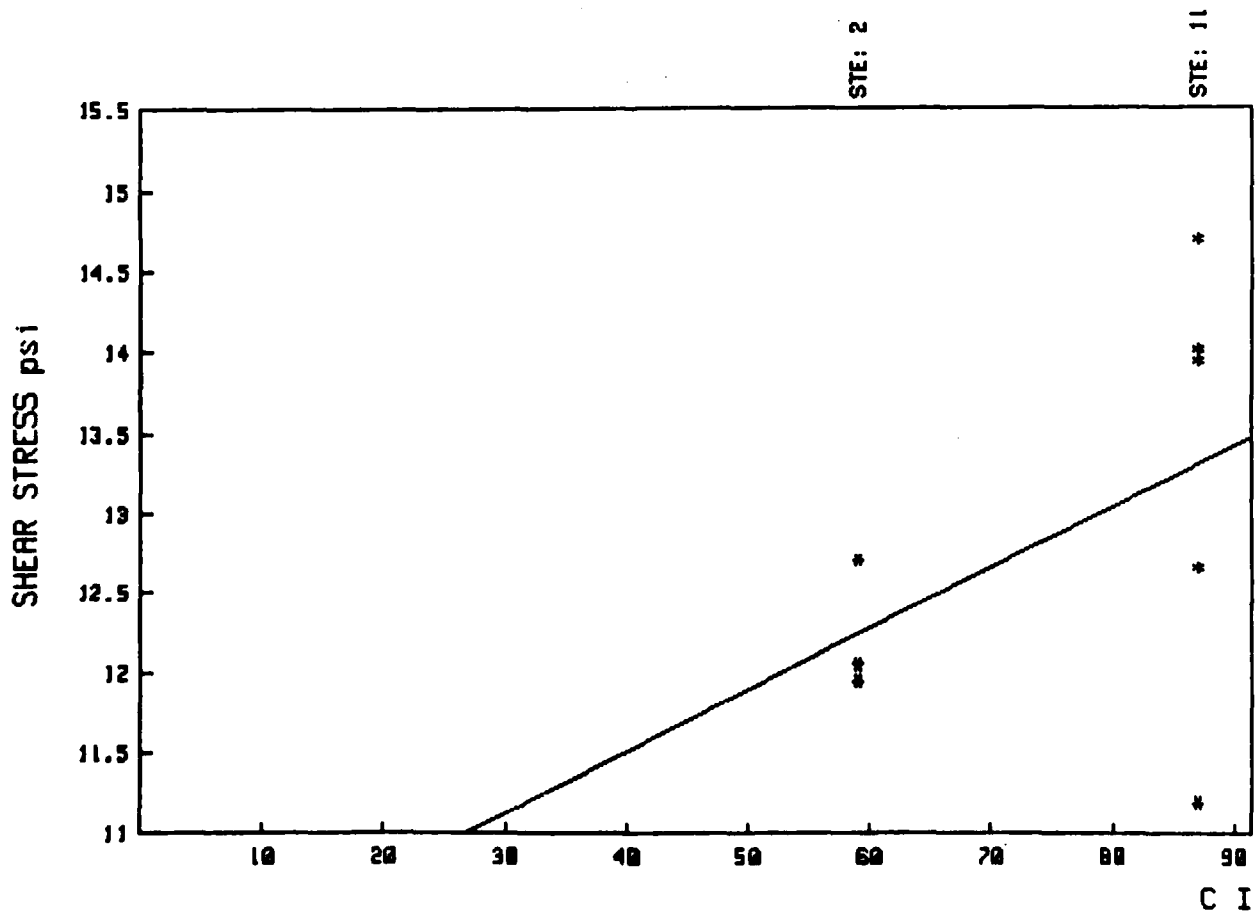


Fig. 14

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - APRIL 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

2 11

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, SOIL TYPE: CL

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 2.97$$

$$b = 1.5560E-01$$

CORRELATION COEFFICIENT

$$R = .8509$$

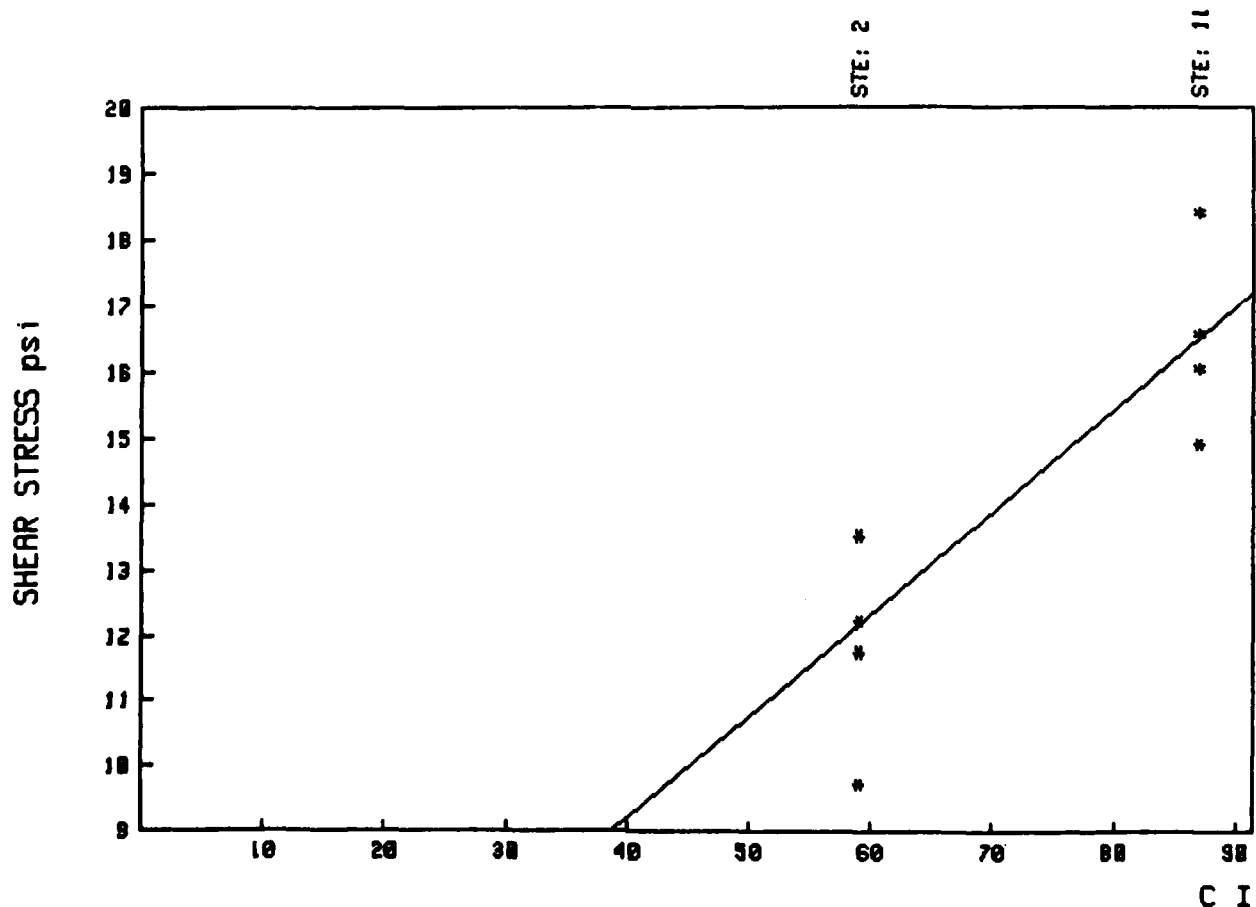


Fig. 15

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

9 18

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, SOIL TYPE: ML

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 6.38$$

$$b = -2.1102E-01$$

CORRELATION COEFFICIENT

$$R = -.3679$$

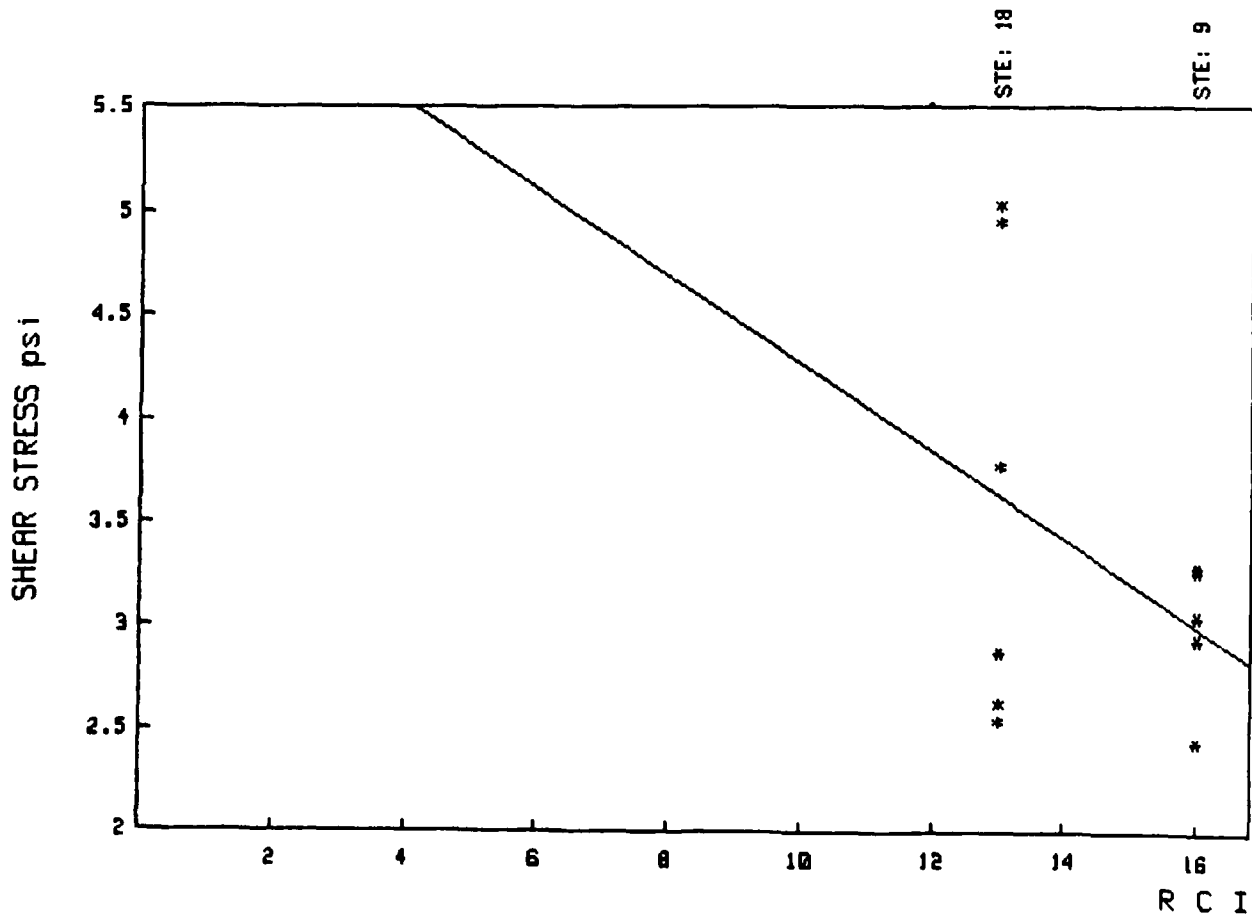


Fig. 16

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

9 18

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, SOIL TYPE: ML

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 2.91$$

$$b = 2.6849E-01$$

CORRELATION COEFFICIENT

$$R = .2996$$

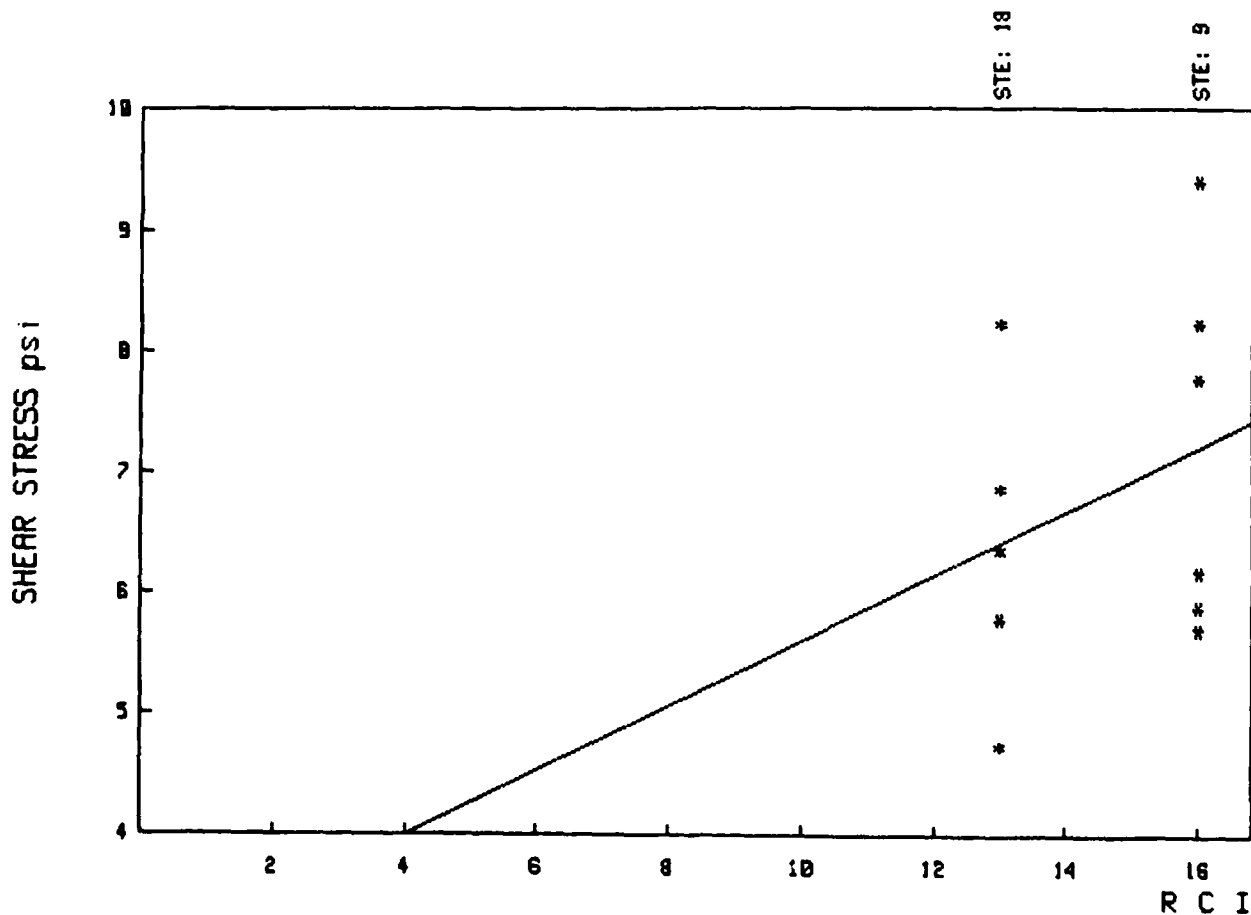


Fig. 17

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

9 18

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, SOIL TYPE: ML

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 4.42$$

$$b = 2.8941E-01$$

CORRELATION COEFFICIENT

$$R = .2728$$

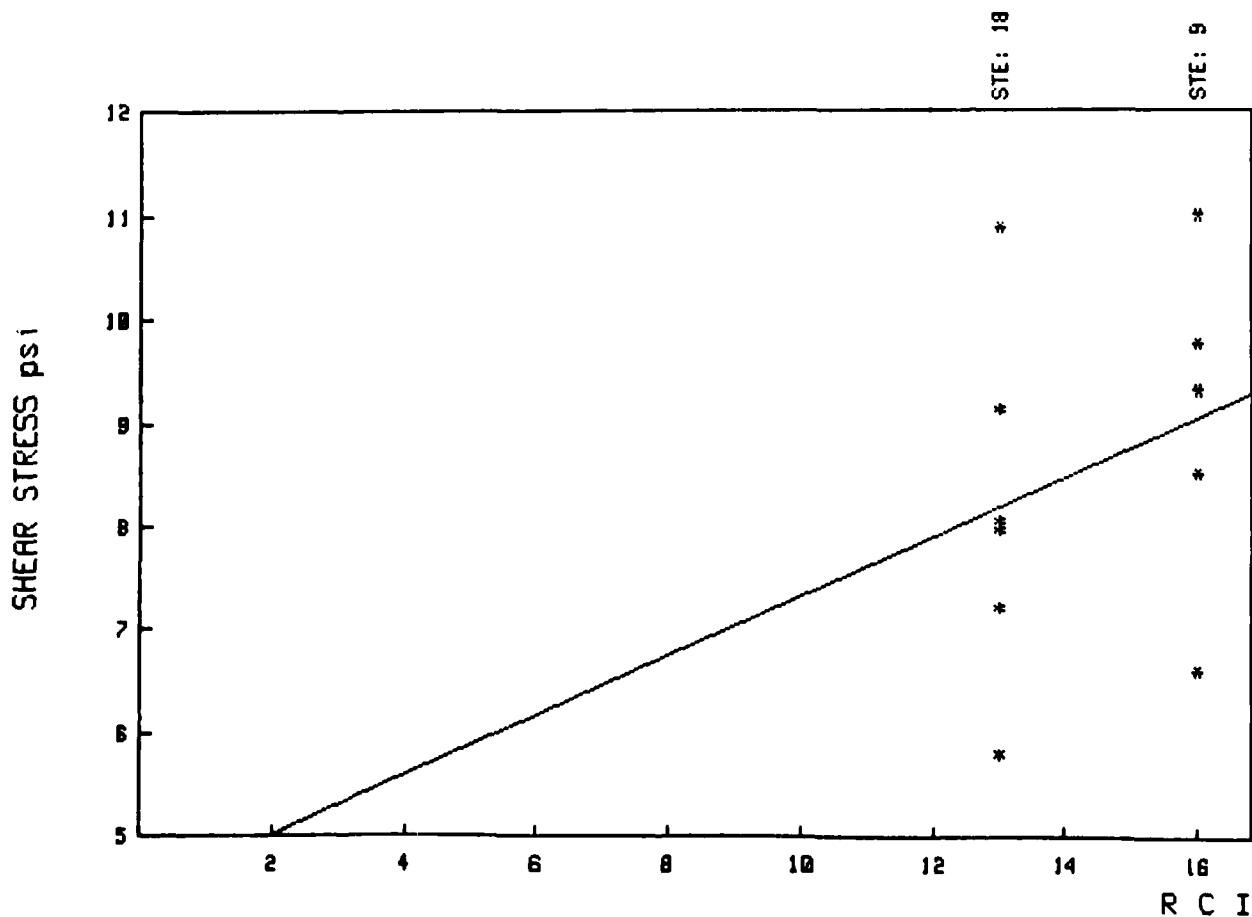


Fig. 18

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

9 18

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, SOIL TYPE: ML

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = -4.17$$

$$b = 2.1102E-01$$

CORRELATION COEFFICIENT

$$R = .3679$$

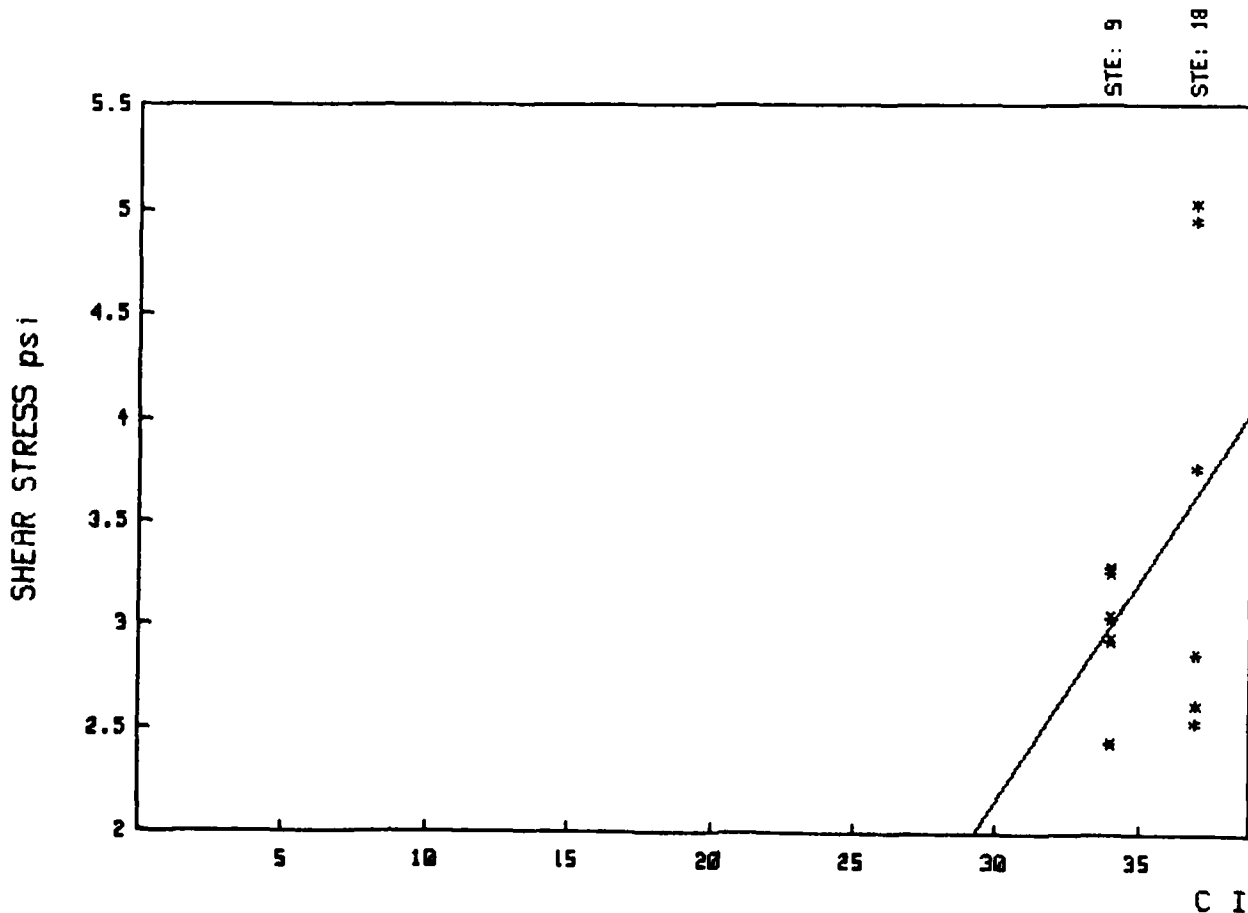


Fig. 19

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

9 18

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, SOIL TYPE: ML

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 16.33$$

$$b = -2.6849E-01$$

CORRELATION COEFFICIENT

$$R = -.2996$$

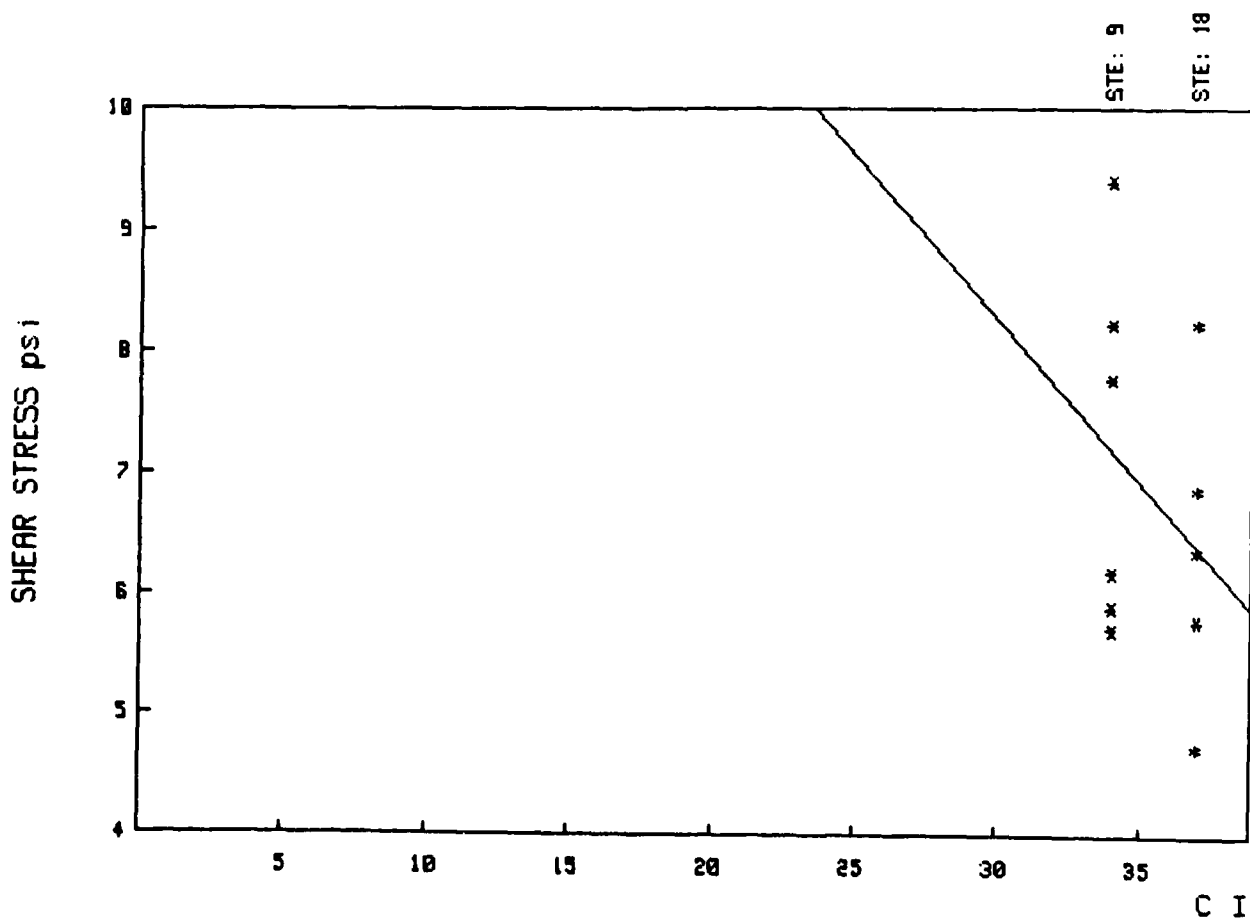


Fig. 20

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

9 18

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, SOIL TYPE: ML

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 18.89$$

$$b = -2.8941E-01$$

CORRELATION COEFFICIENT

$$R = -.2728$$

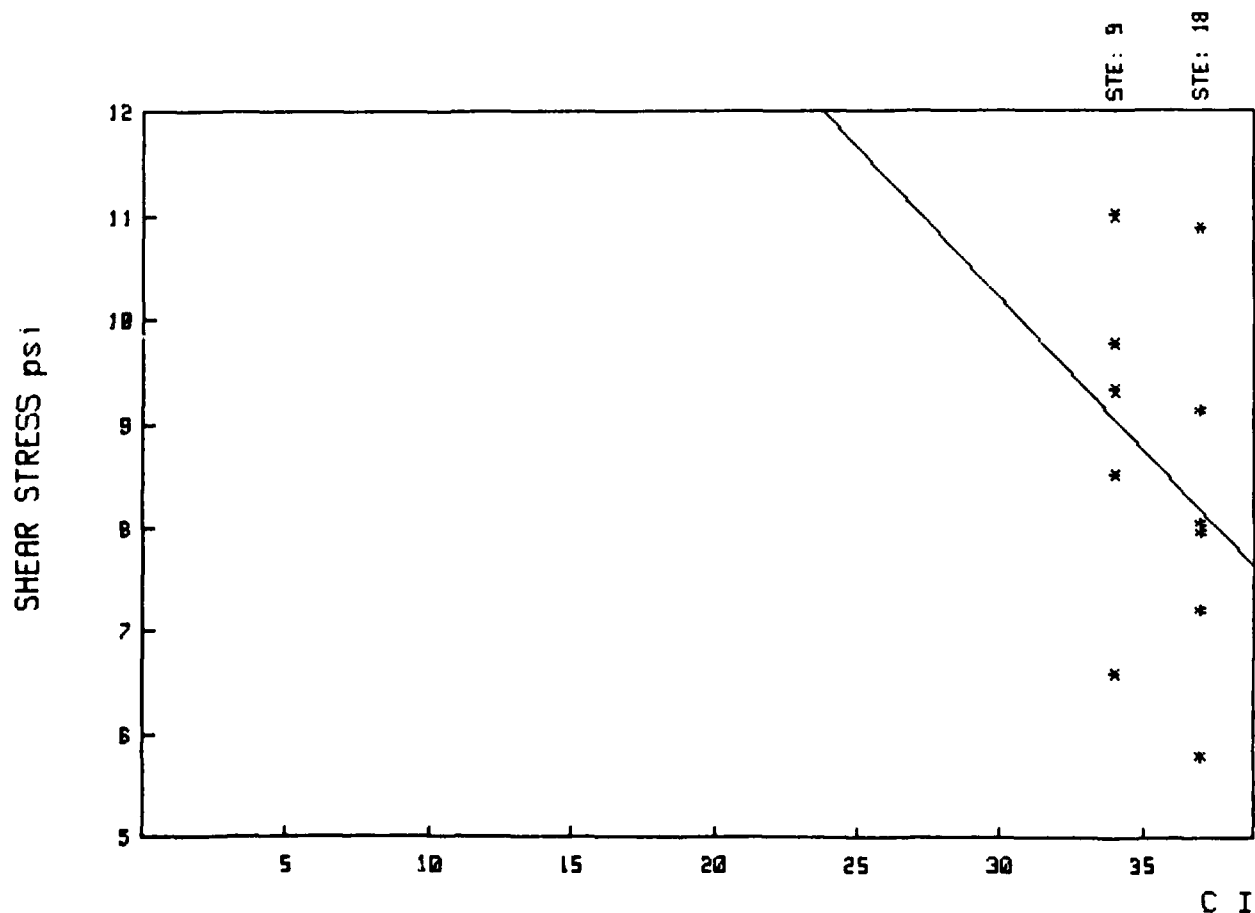


Fig. 21

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

3 20 23

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, SOIL TYPE: SM

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 1.68$$

$$b = 7.6940E-02$$

CORRELATION COEFFICIENT

$$R = .6101$$

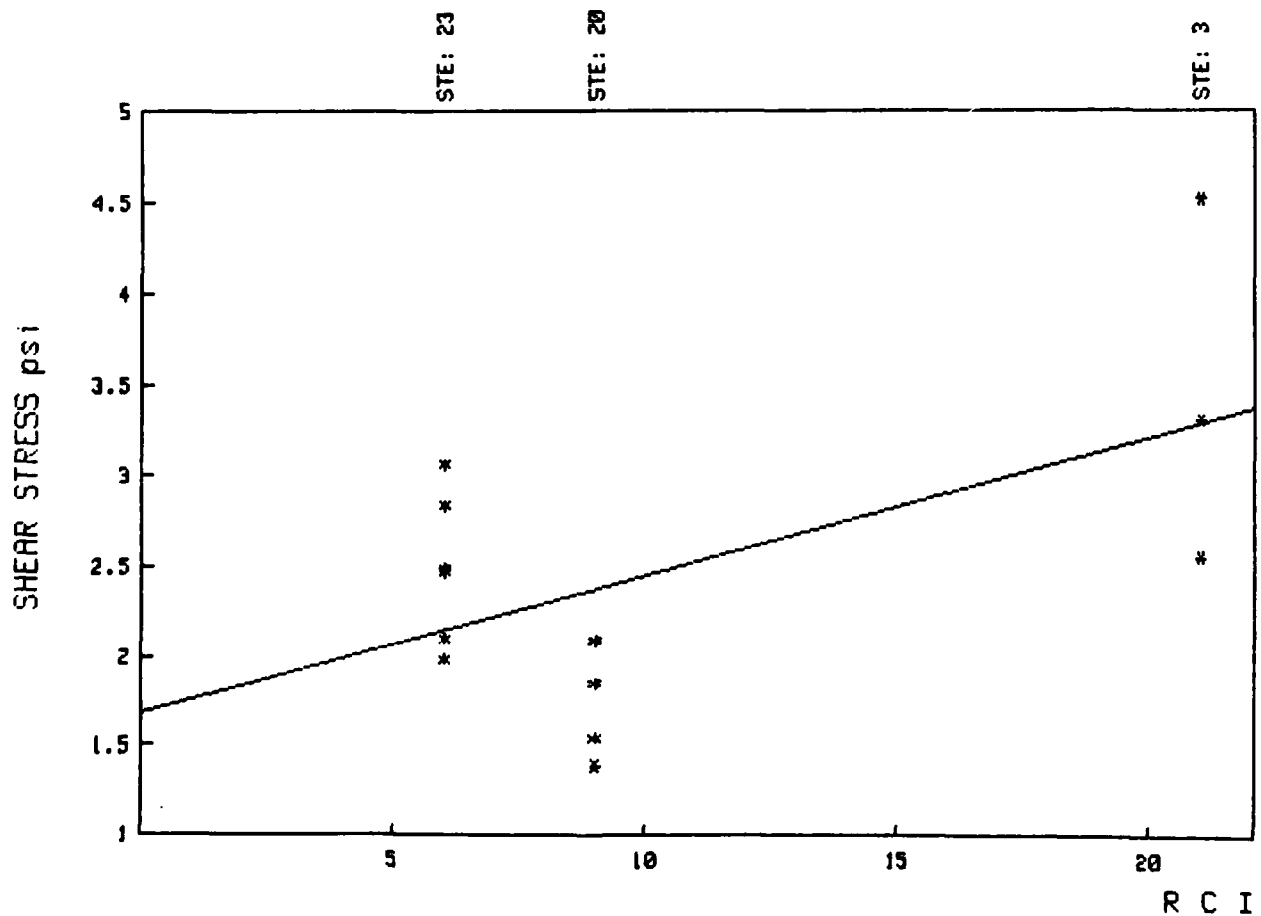


Fig. 22

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

3 20 23

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, SOIL TYPE: SM

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 3.18$$

$$b = 2.4880E-01$$

CORRELATION COEFFICIENT

$$R = .6411$$

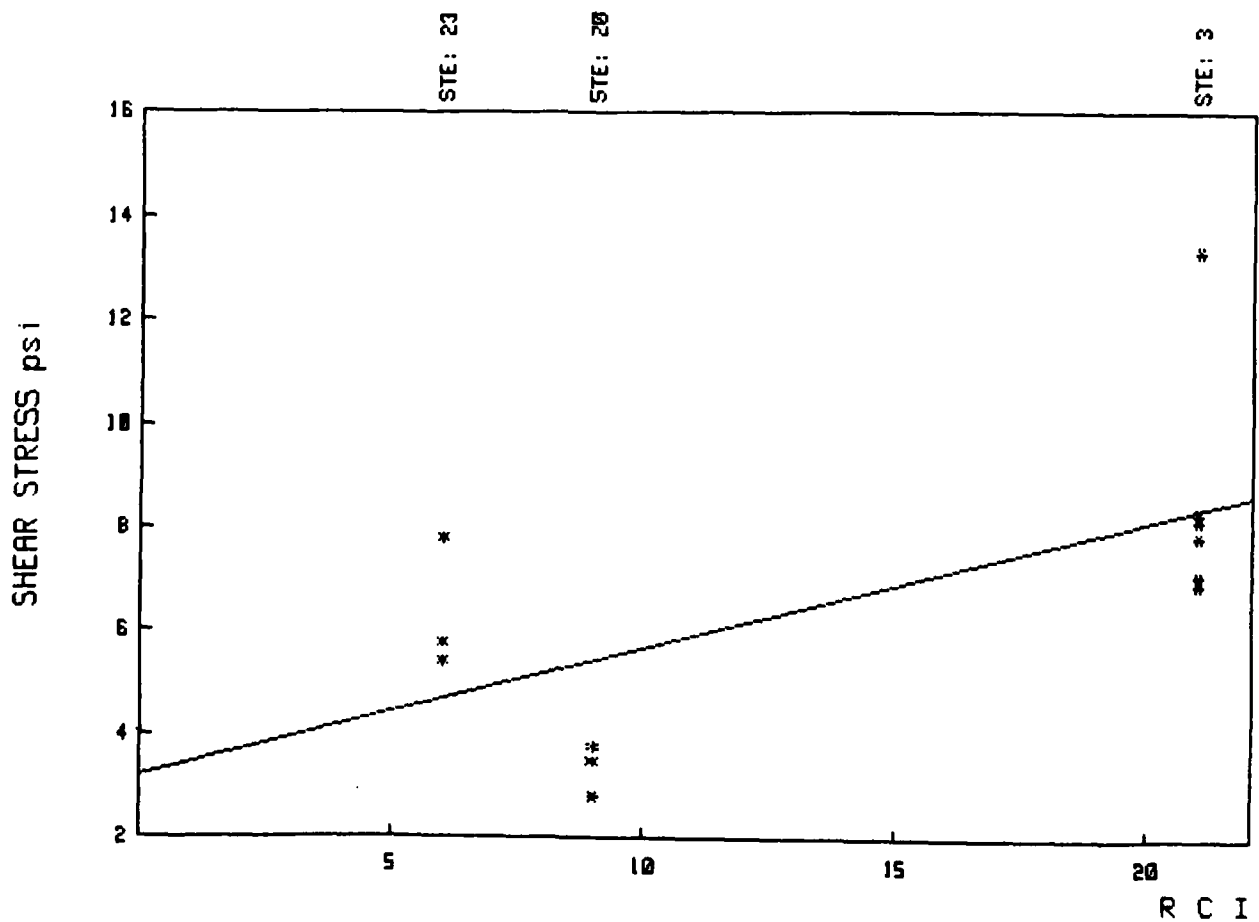


Fig. 23

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

3 20 23

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, SOIL TYPE: SM

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 5.86$$

$$b = 1.1954E-01$$

CORRELATION COEFFICIENT

$$R = .2688$$

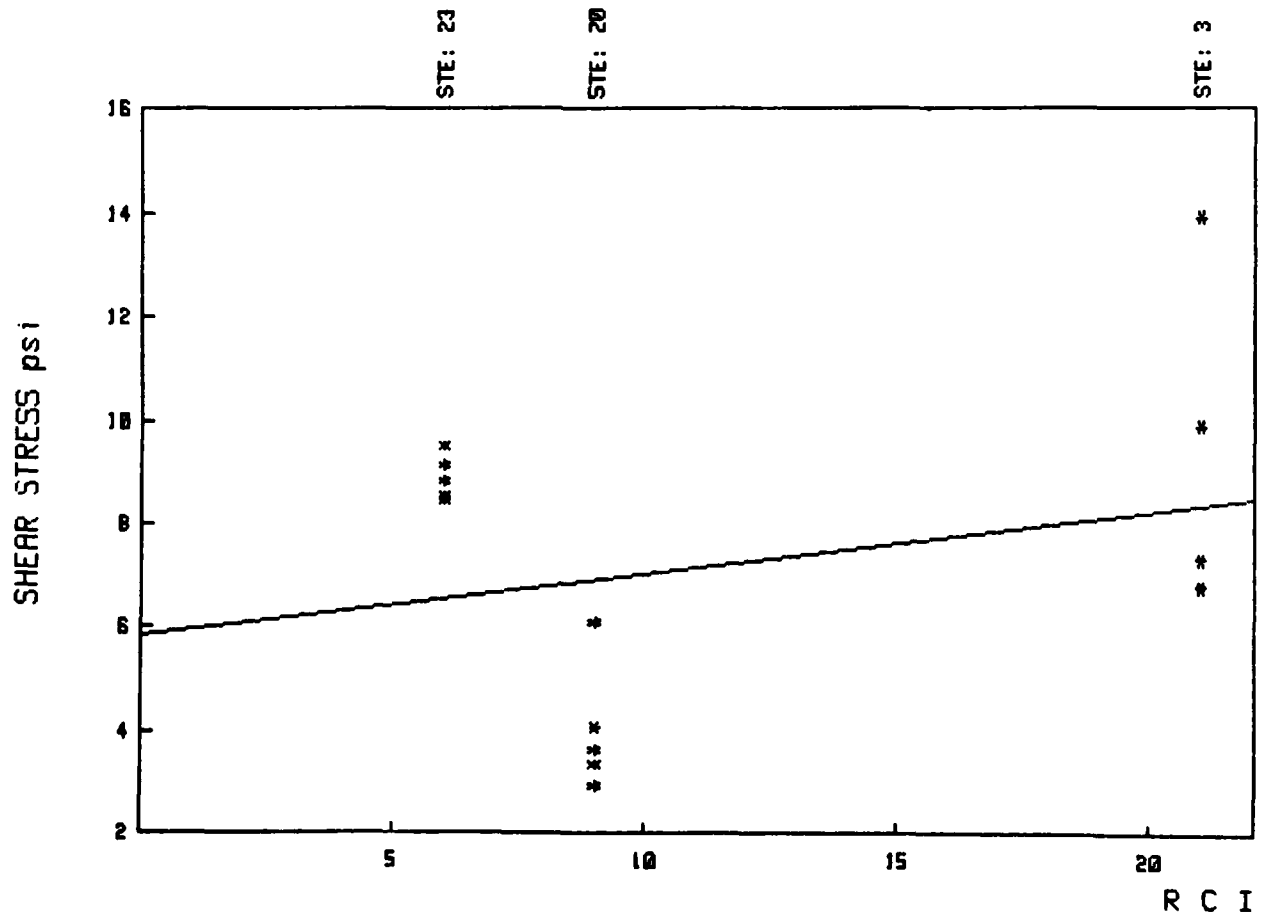


Fig. 24

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

3 20 23

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, SOIL TYPE: SM

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 1.55$$

$$b = 3.6452E-02$$

CORRELATION COEFFICIENT

$$R = .6905$$

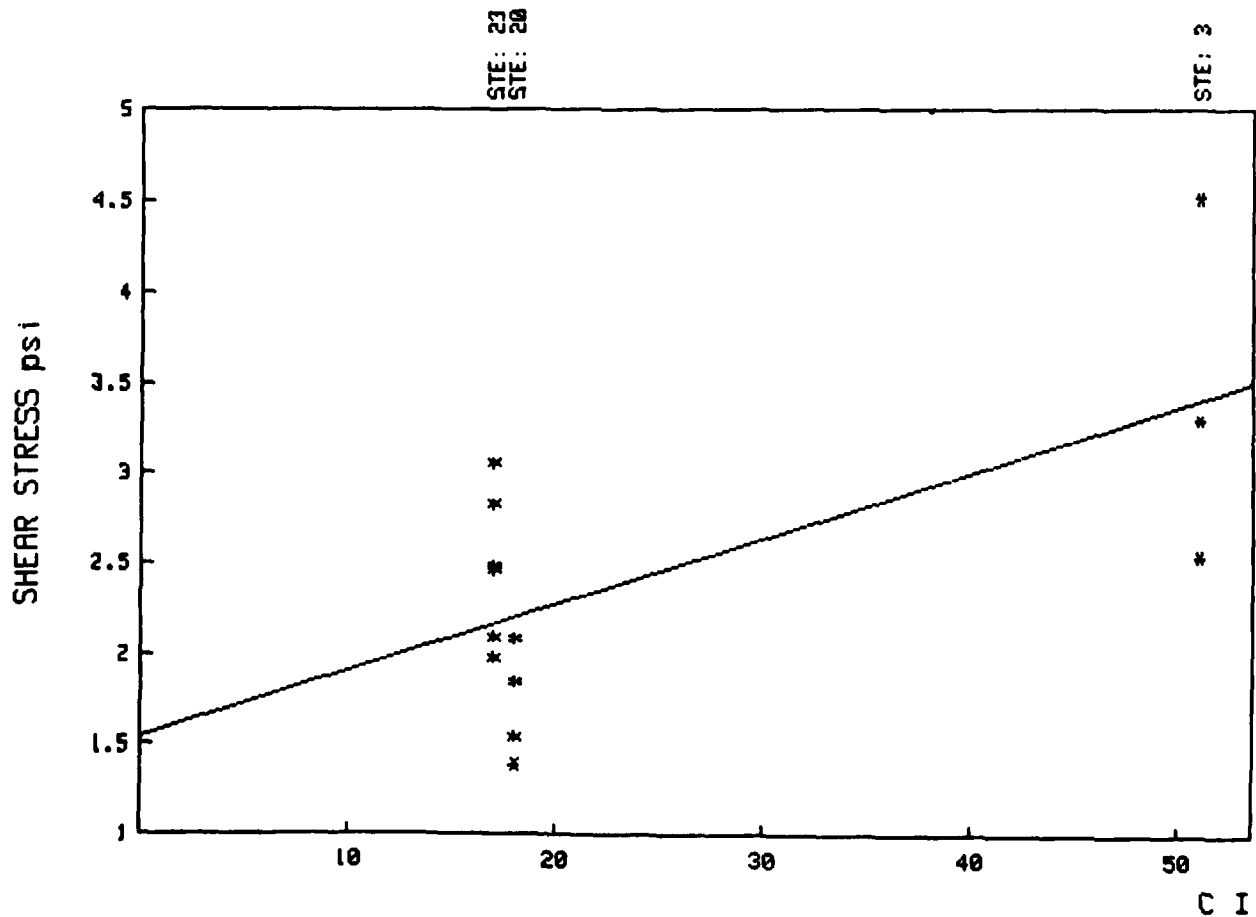


Fig. 25

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

3 20 23

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, SOIL TYPE: SM

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 2.93$$

$$b = 1.1046E-01$$

CORRELATION COEFFICIENT

$$R = .6985$$

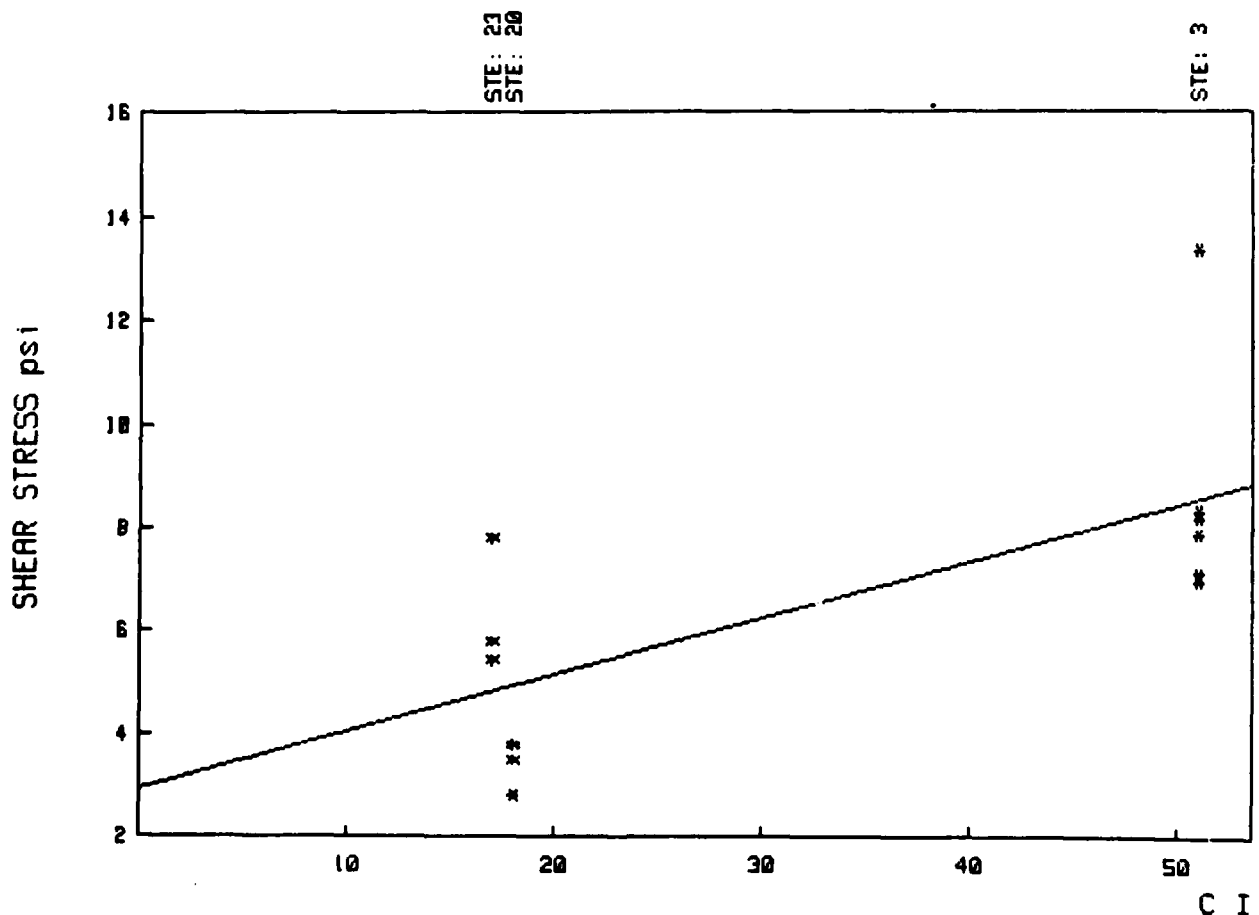


Fig. 26

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

3 20 23

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, SOIL TYPE: SM

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 5.26$$

$$b = 7.0928E-02$$

CORRELATION COEFFICIENT

$$R = .3887$$

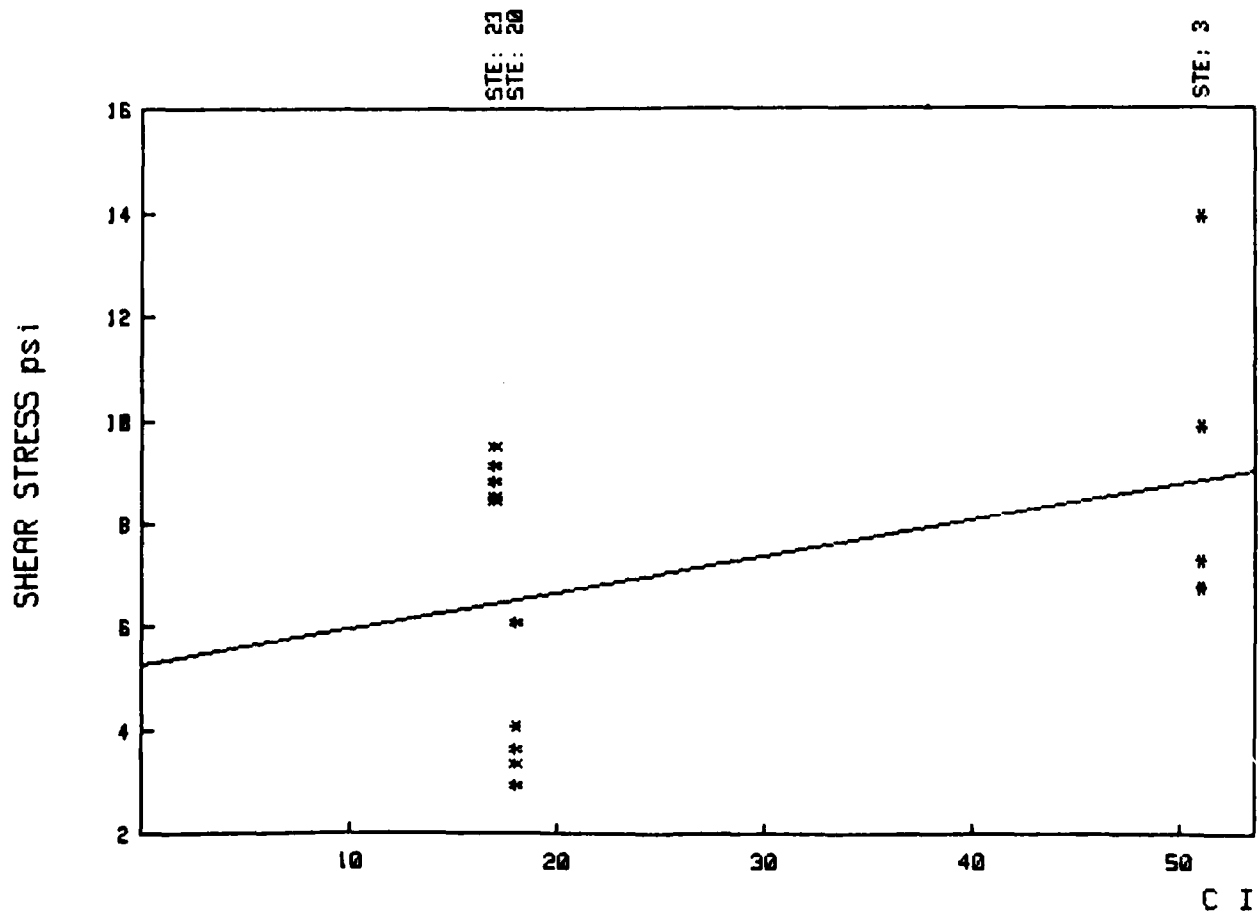


Fig. 27

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 10 12 14 25 27 28 31 34

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, SOIL TYPE: OH

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = .76$$

$$b = 1.1157E-01$$

CORRELATION COEFFICIENT

$$R = .3856$$

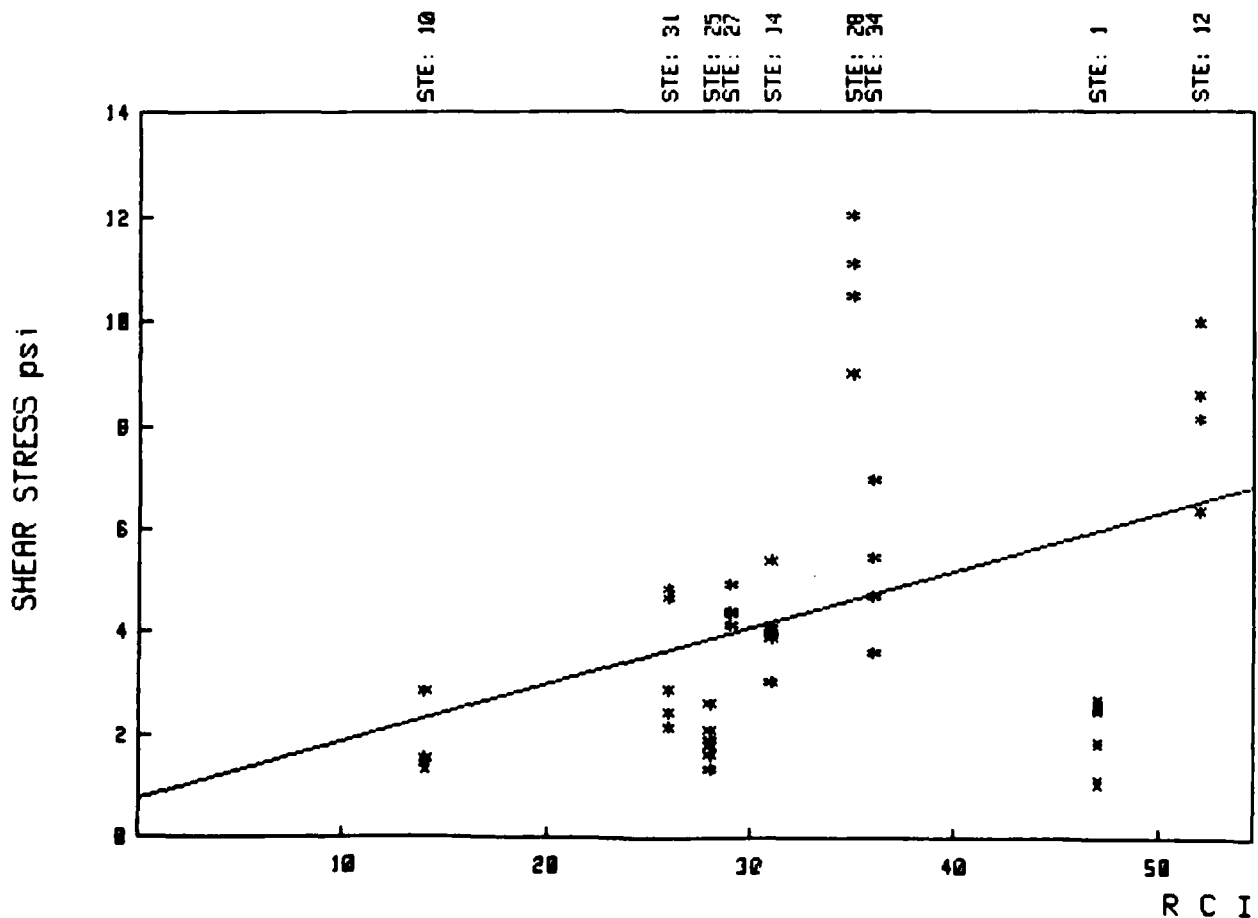


Fig. 28

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 10 12 14 25 27 28 31 34

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, SOIL TYPE: OH

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = .16$$

$$b = 2.8023E-01$$

CORRELATION COEFFICIENT

$$R = .6834$$

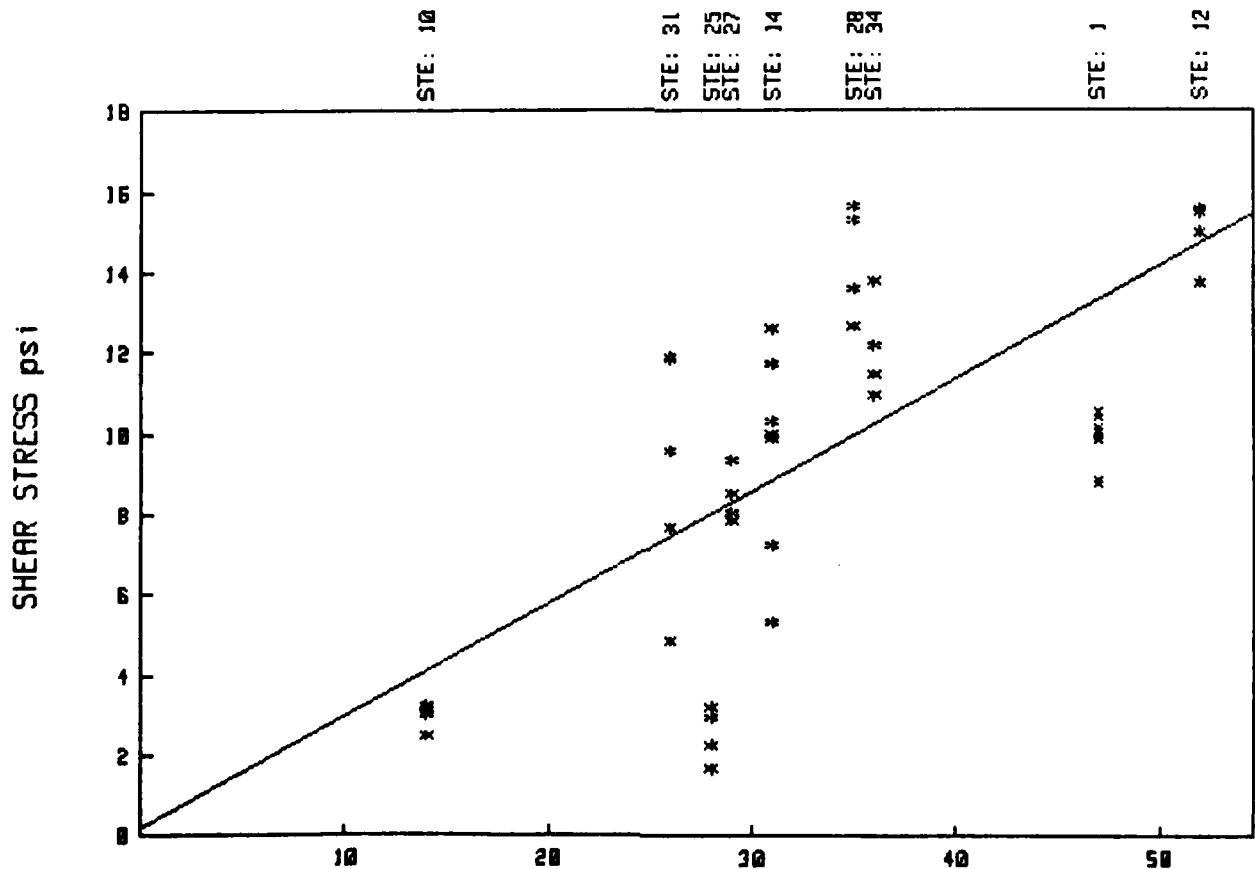


Fig. 29

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 10 12 14 25 27 28 31 34

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, SOIL TYPE: OH

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = .37$$

$$b = 3.3527E-01$$

CORRELATION COEFFICIENT

$$R = .6847$$

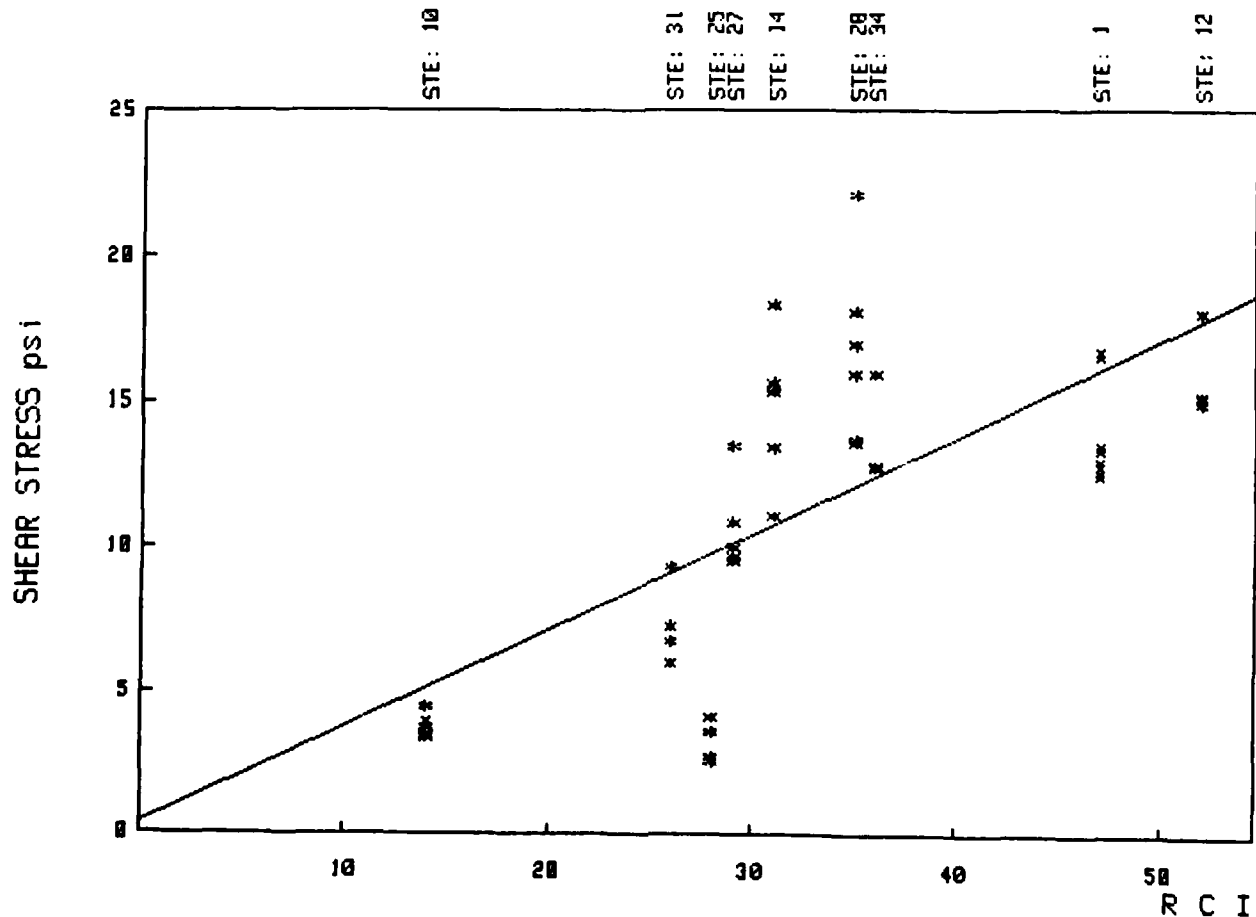


Fig. 30

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Soil Type = const.

VALLEY OF INSTITUTE FOR TRANSDUCING AND MEASUREMENT

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 10 12 14 25 27 28 31 34

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, SOIL TYPE: OH

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = -.55$$

$$b = 8.6656E-02$$

CORRELATION COEFFICIENT

$$R = .4577$$

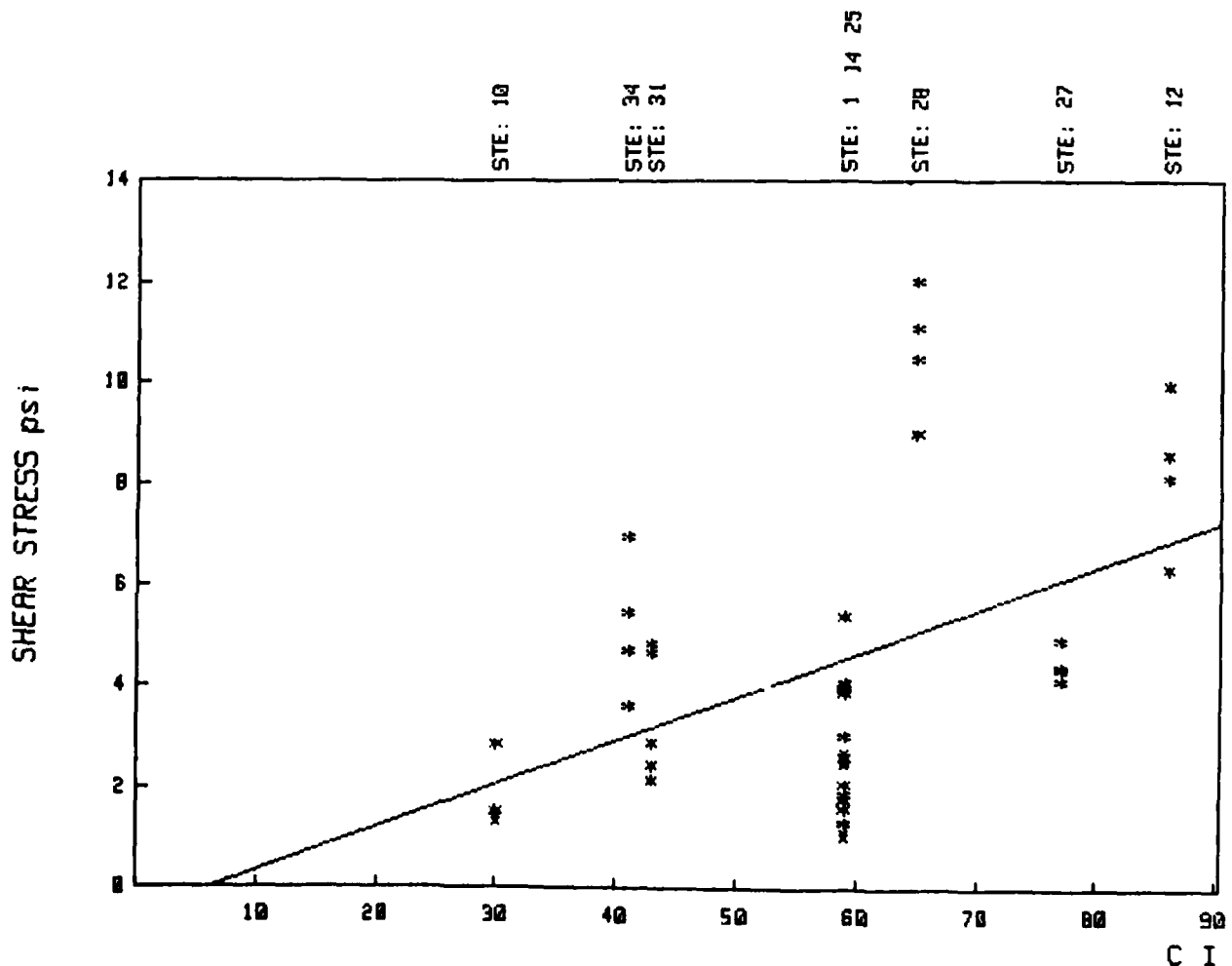


Fig. 31

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 10 12 14 25 27 28 31 34

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, SOIL TYPE: OH

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 2.50$$

$$b = 1.1920E-01$$

CORRELATION COEFFICIENT

$$R = .4551$$

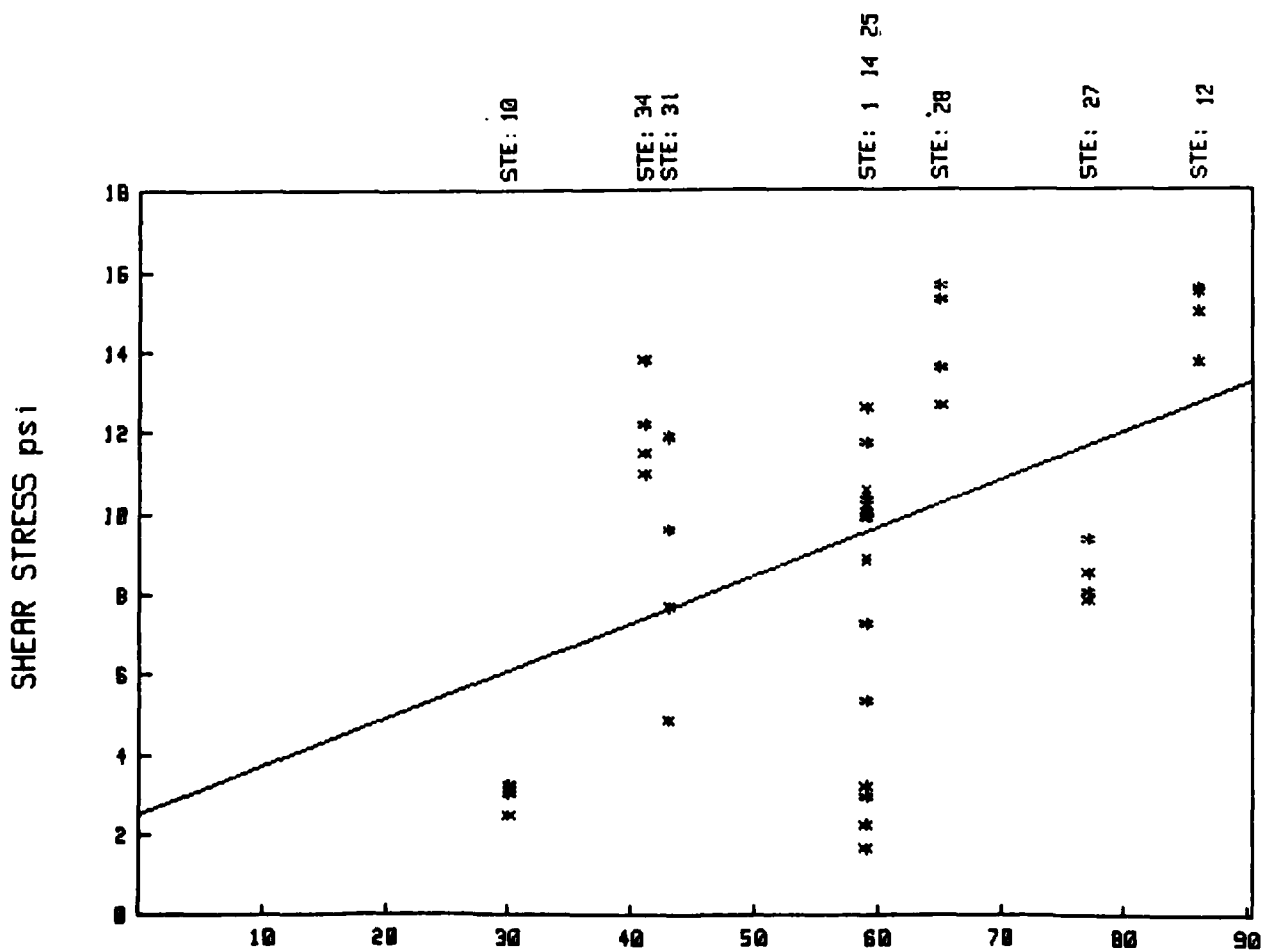


Fig. 32

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 10 12 14 25 27 28 31 34

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, SOIL TYPE: OH

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 1.51$$

$$b = 1.6905E-01$$

CORRELATION COEFFICIENT

$$R = .5278$$

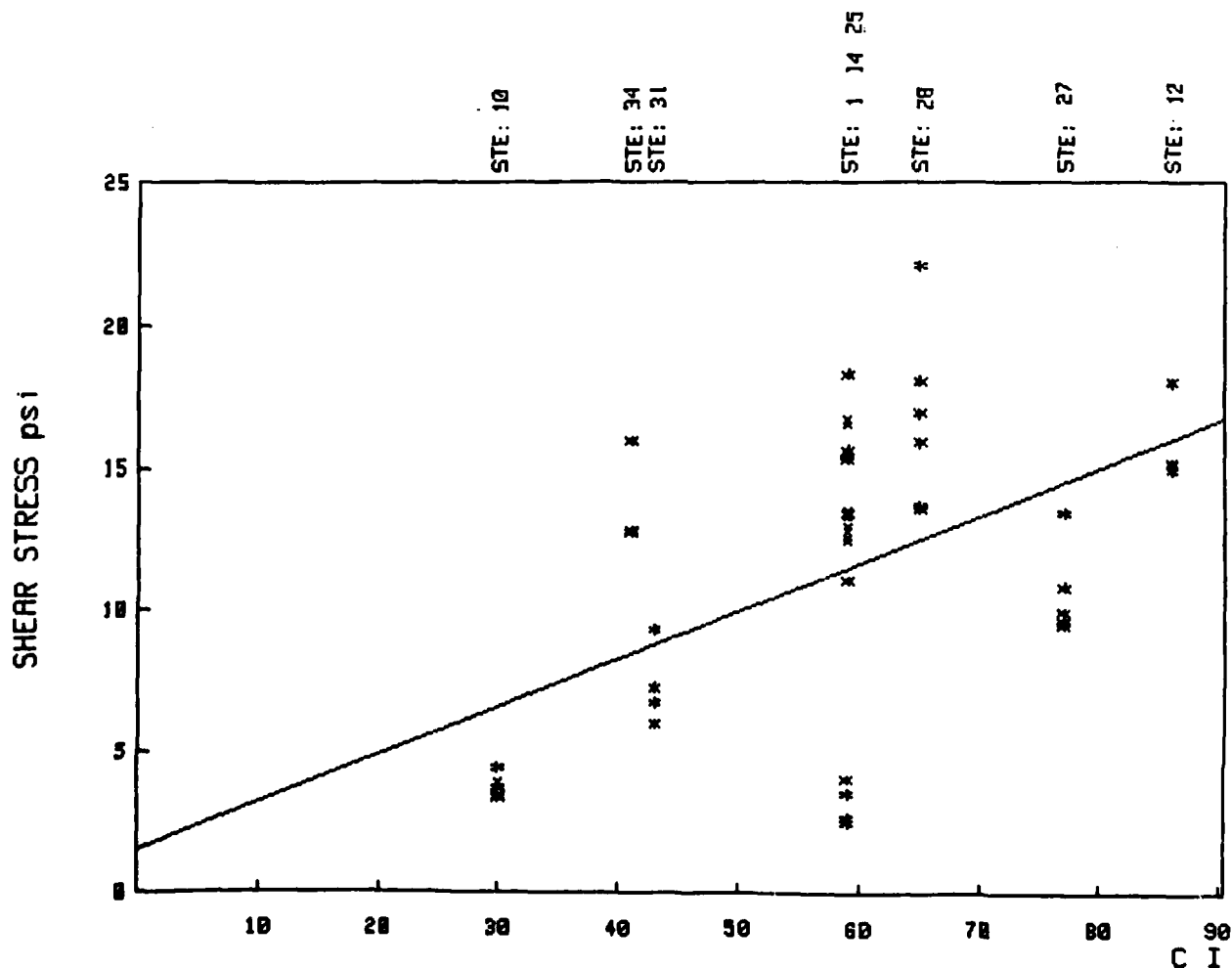


Fig. 33

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Soil Type = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 2 9 11 12 14 18 23 31

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, MOISTURE CONTENT: 20-50%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 2.46$$

$$b = 5.2217E-02$$

CORRELATION COEFFICIENT

$$R = .5015$$

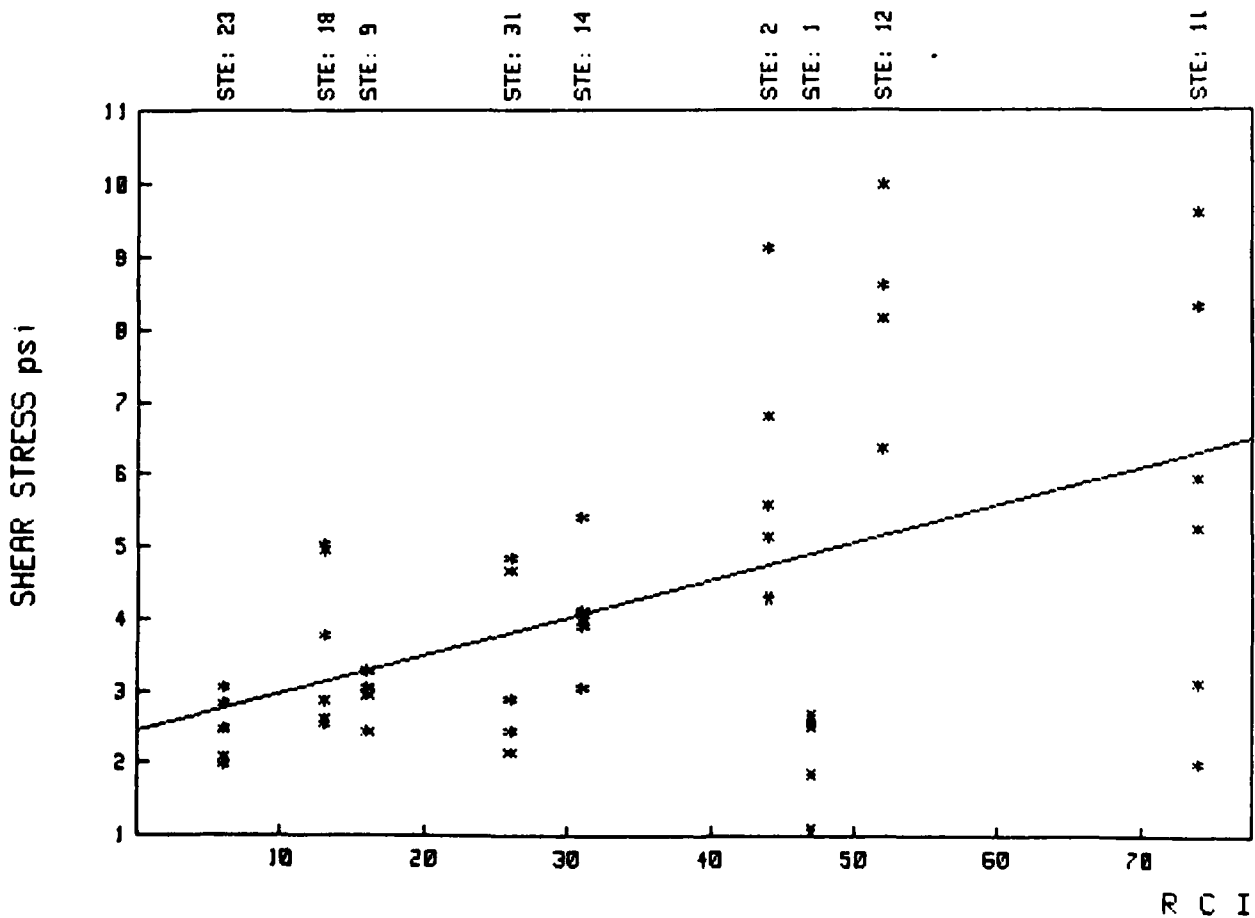


Fig. 34

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Moisture Content = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 2 9 11 12 14 18 23 31

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, MOISTURE CONTENT: 20-50%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 5.59$$

$$b = 1.2277E-01$$

CORRELATION COEFFICIENT

$$R = .7764$$

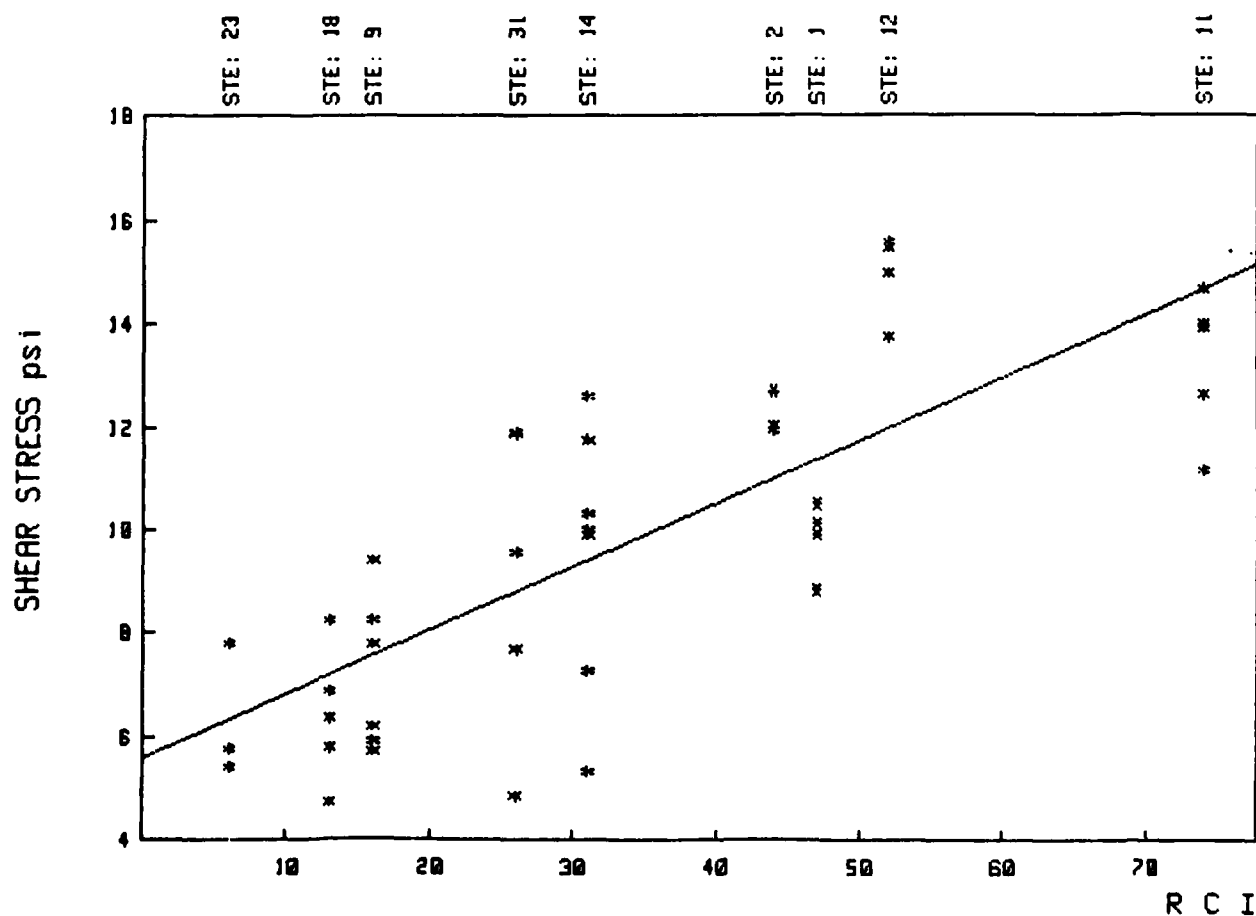


Fig.35

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Moisture Content = const.

DATA FROM CONE INDEX TESTS BY J. R. B. (1985)

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 2 9 11 12 14 18 23 31

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, MOISTURE CONTENT: 20-50%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 7.28$$

$$b = 1.3656E-01$$

CORRELATION COEFFICIENT

$$R = .7588$$

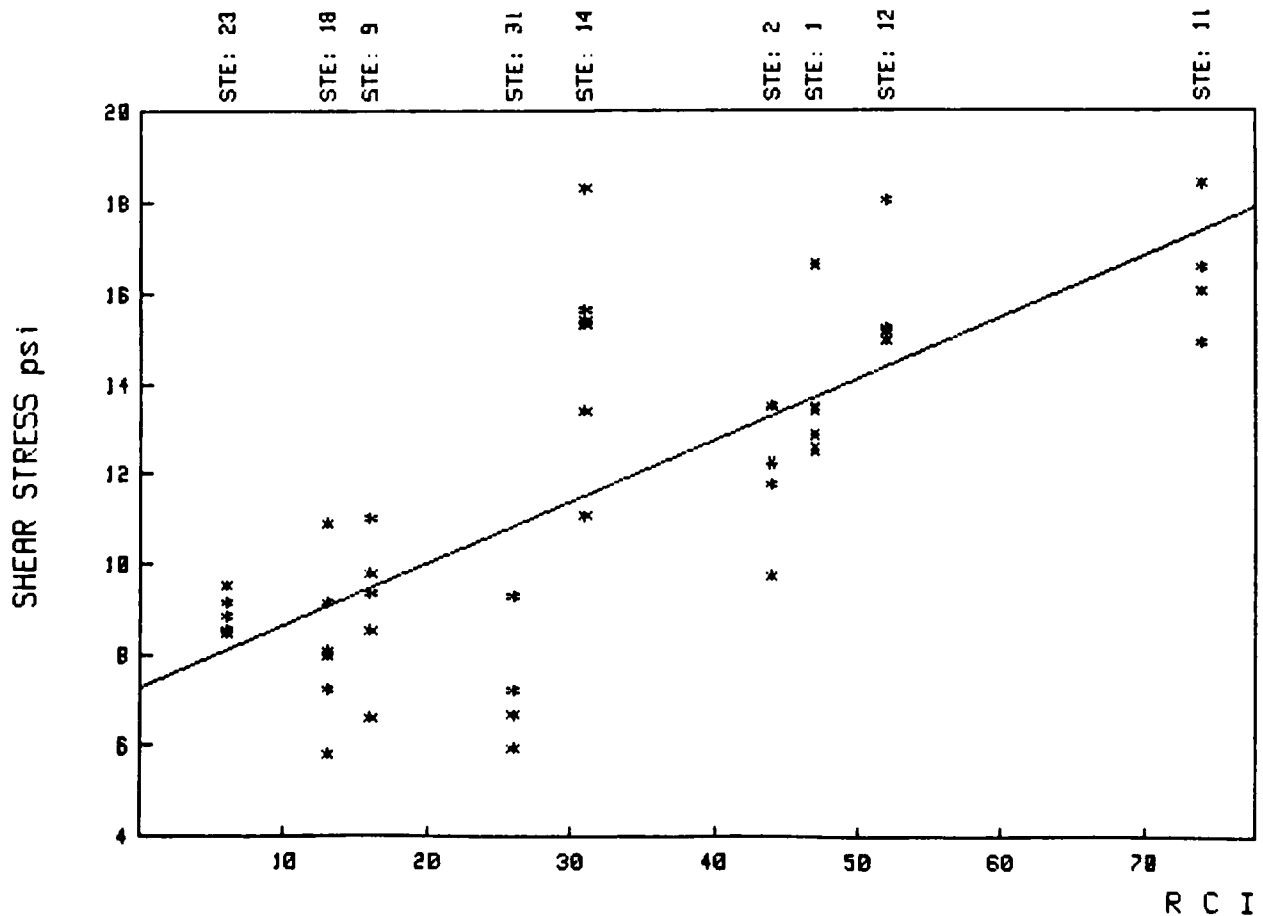


Fig.36

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Moisture Content = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

3 7 10 28 34

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, MOISTURE CONTENT: 50-70%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = -2.30$$

$$b = 2.8379E-01$$

CORRELATION COEFFICIENT

$$R = .7459$$

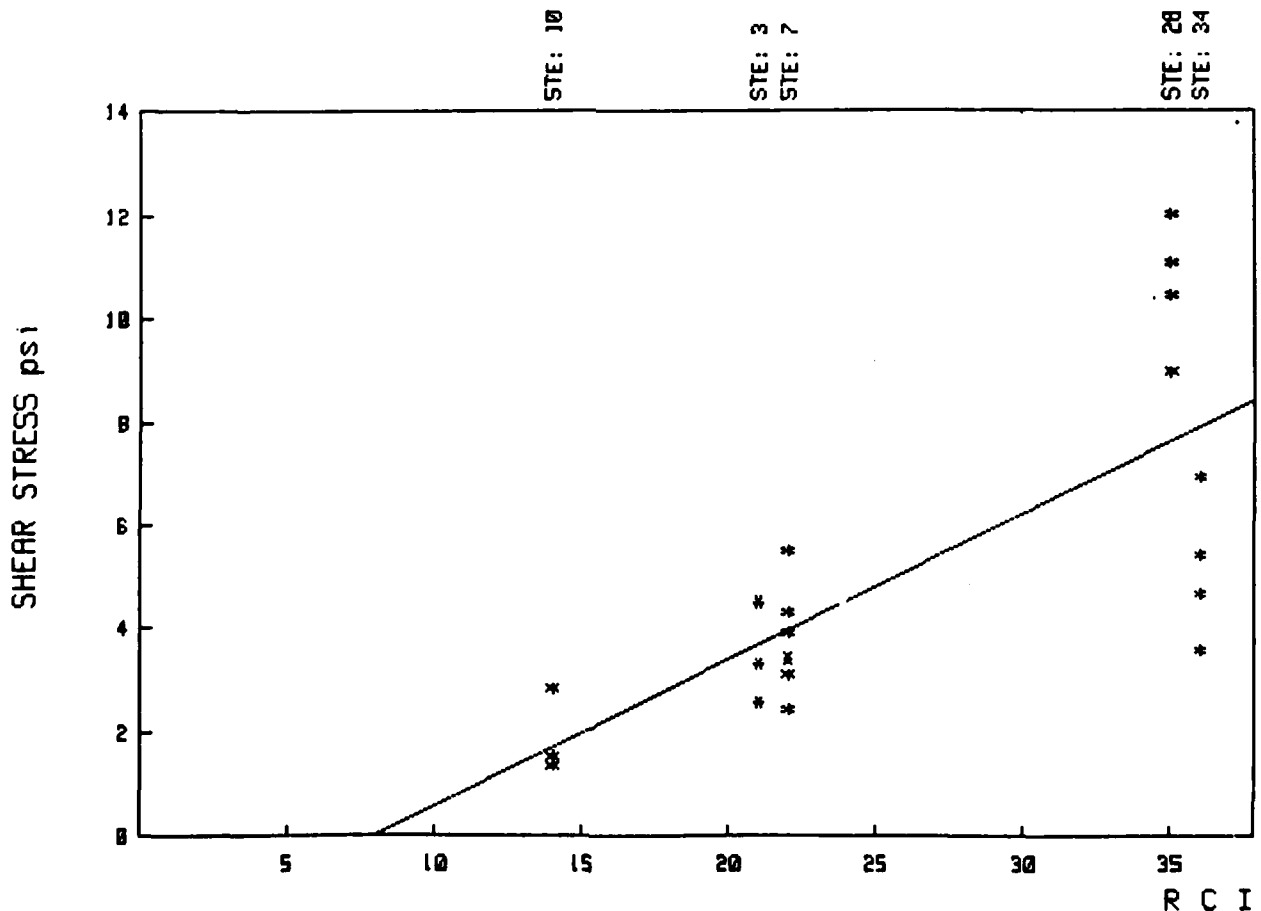


Fig.37

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Moisture Content = const.

DAVID L. HILL, JR., FRANK J. HILL, JR.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

3 7 10 28 34

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, MOISTURE CONTENT: 50-70%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = -1.41$$

$$b = 4.2095E-01$$

CORRELATION COEFFICIENT

$$R = .8792$$

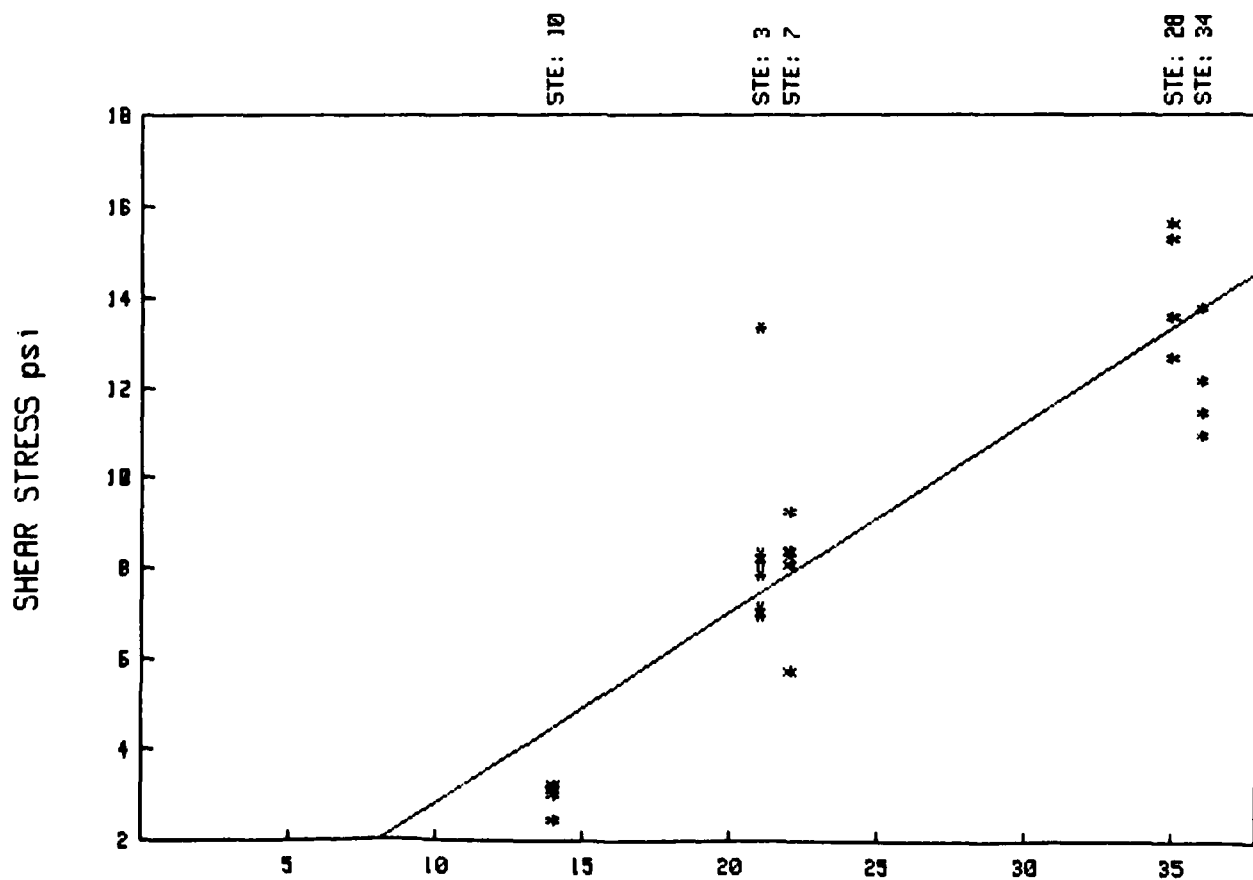


Fig. 38

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Moisture Content = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

3 7 10 28 34

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, MOISTURE CONTENT: 50-70%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = -2.60$$

$$b = 5.2719E-01$$

CORRELATION COEFFICIENT

$$R = .8769$$

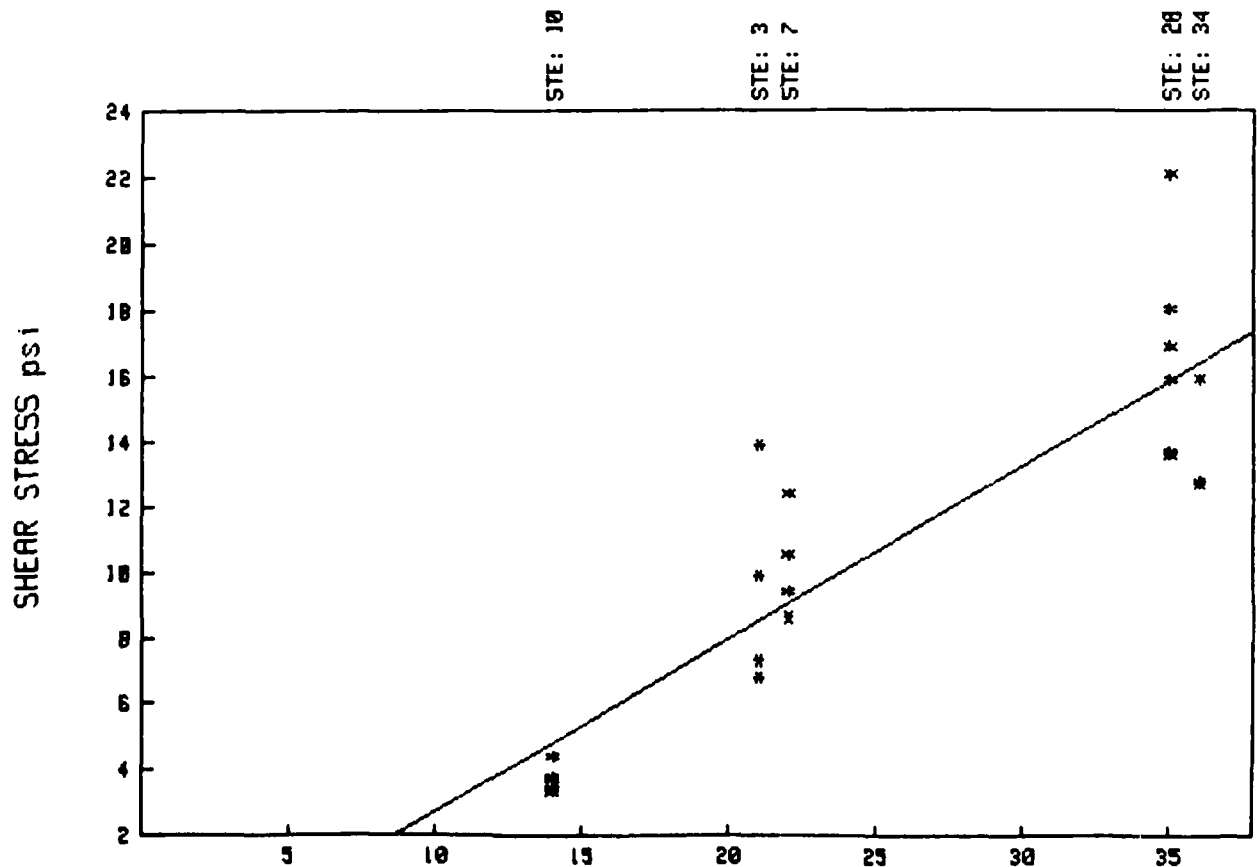


Fig.39

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Moisture Content = const.

R C I

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

20 35

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, MOISTURE CONTENT: 70-100%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = -.59$$

$$b = 2.5564E-01$$

CORRELATION COEFFICIENT

$$R = .9133$$

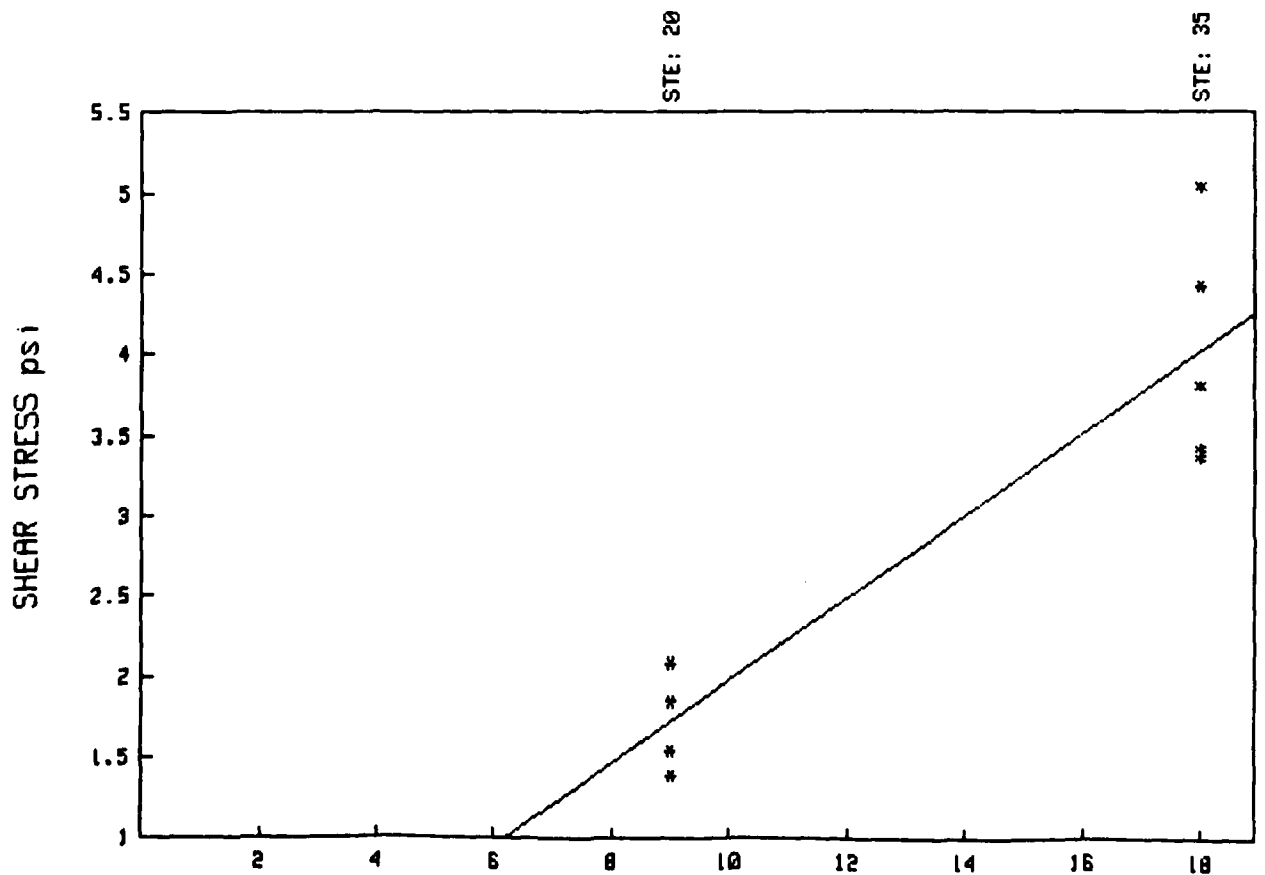


Fig. 40

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Moisture Content = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

20 35

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, MOISTURE CONTENT: 70-100%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = .60$$

$$b = 3.0547E-01$$

CORRELATION COEFFICIENT

$$R = .7228$$

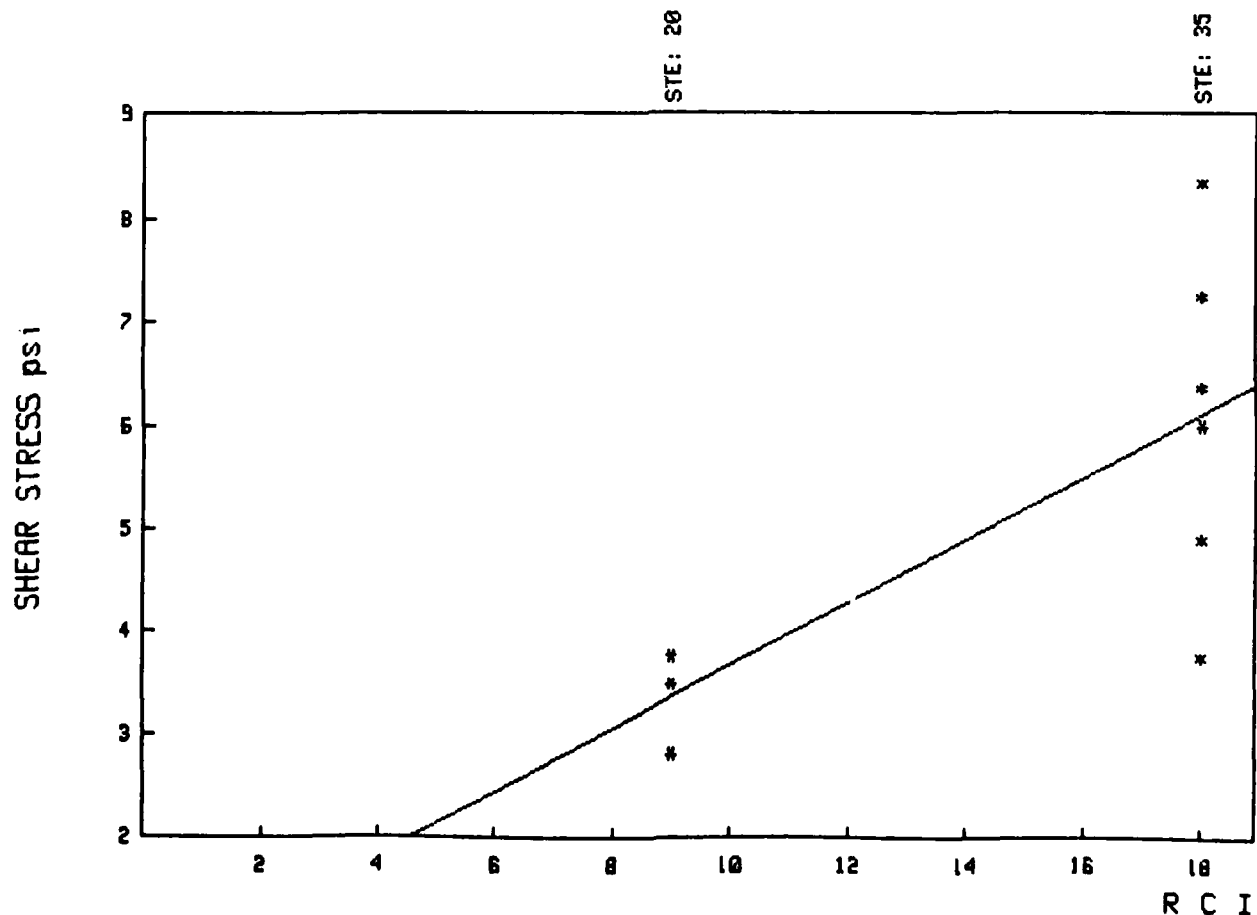


Fig.4.1

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Moisture Content = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

20 35

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, MOISTURE CONTENT: 70-100%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 1.56$$

$$b = 2.7301E-01$$

CORRELATION COEFFICIENT

$$R = .5906$$

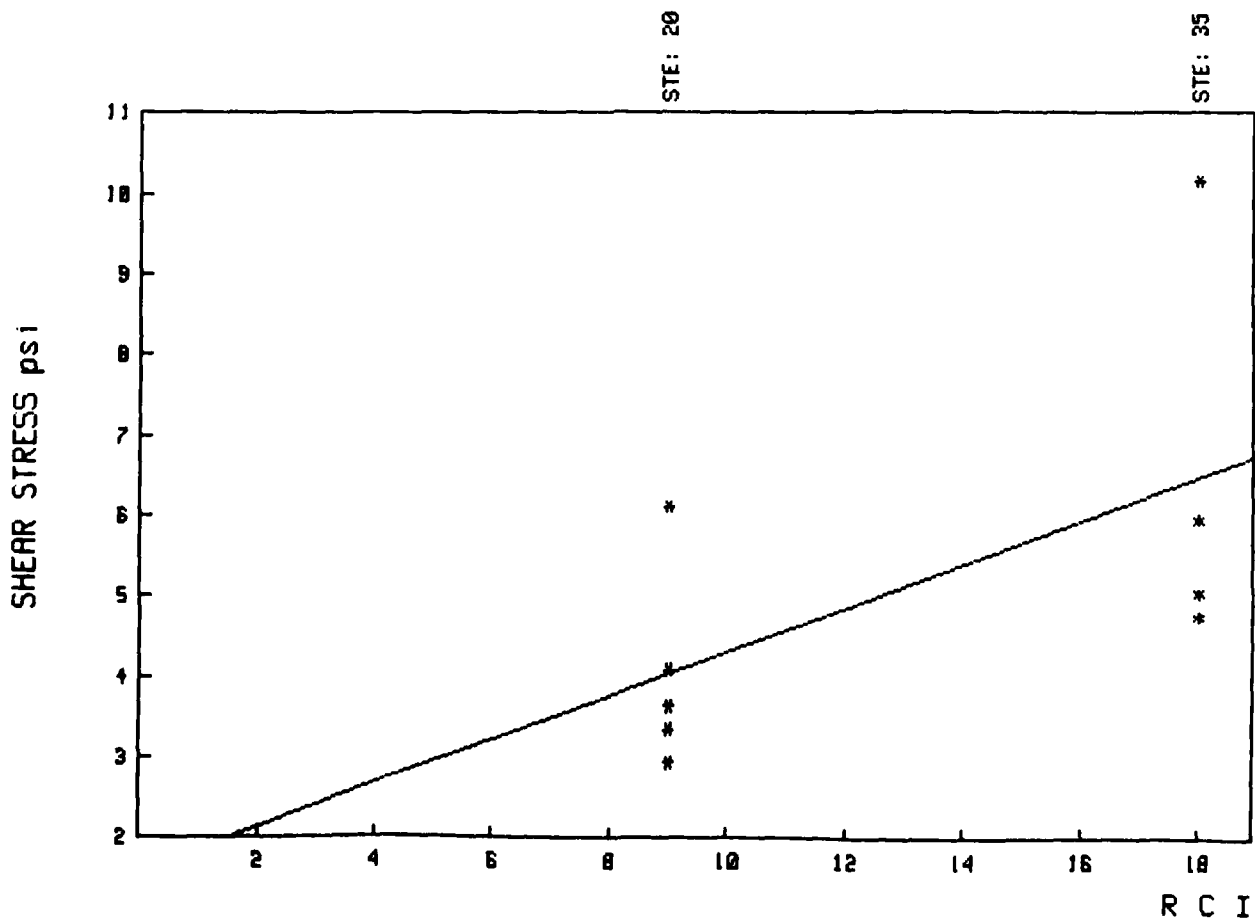


Fig.42

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Moisture Content = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

6 8 13 19 21 25

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, MOISTURE CONTENT: >100%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = .89$$

$$b = 6.0229E-02$$

CORRELATION COEFFICIENT

$$R = .7562$$

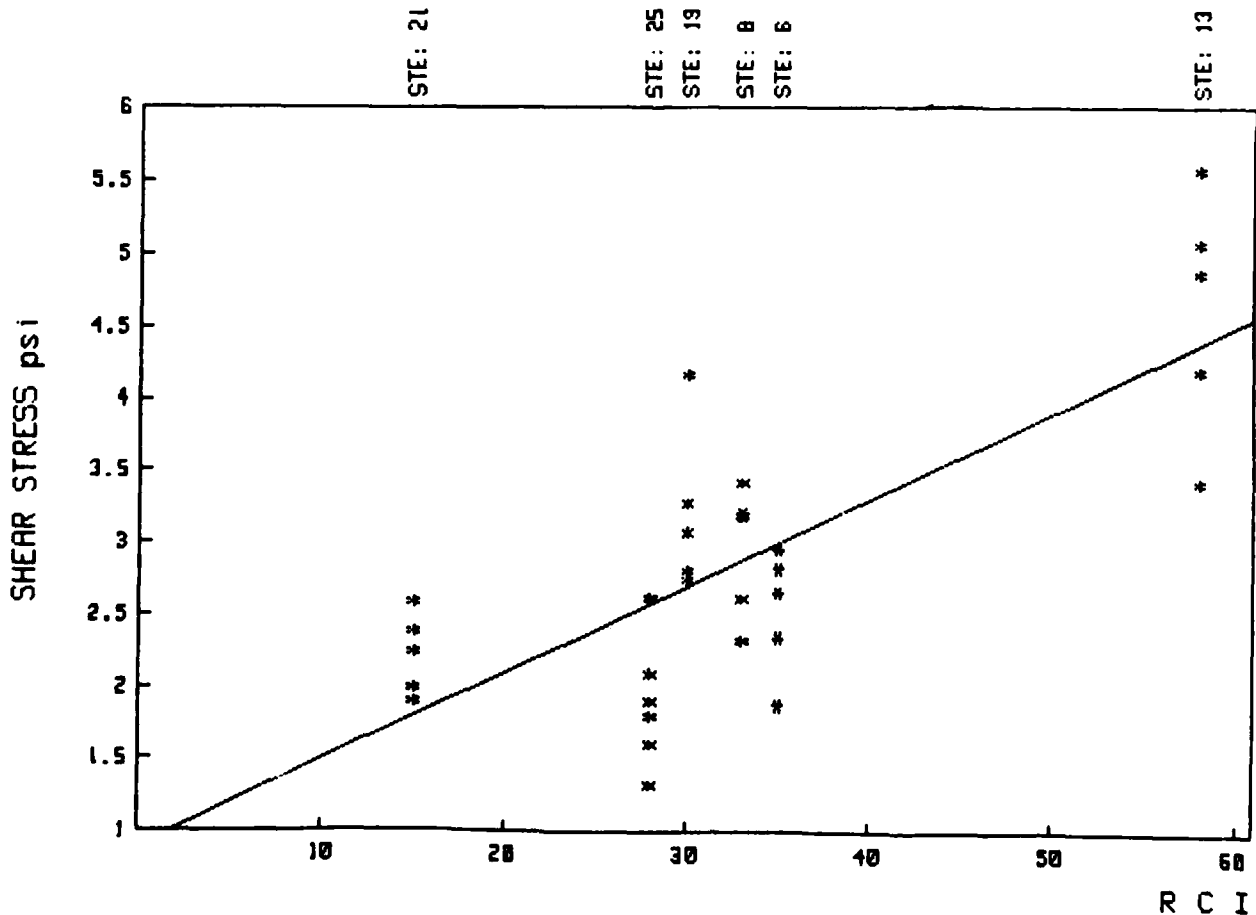


Fig.43

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Moisture Content = const.

BULLETIN INSTITUTE OF TRANSPORTATION ENGINEERING

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

6 8 13 19 21 25

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, MOISTURE CONTENT: >100%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = .77$$

$$b = 1.8217E-01$$

CORRELATION COEFFICIENT

$$R = .6854$$

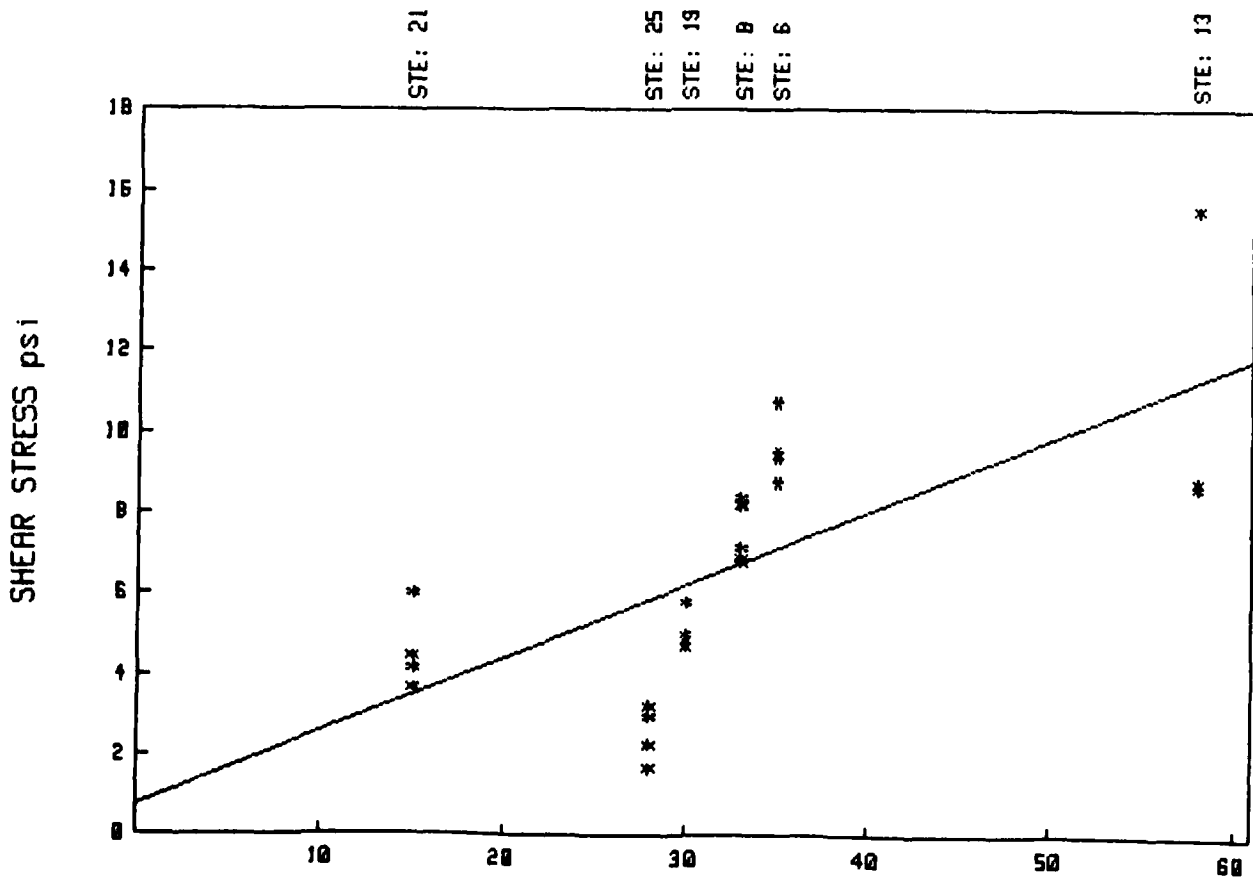


Fig.44

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Moisture Content = const.
BUT THE INSTALLED TRANSDUCER PLACEMENT

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

6 8 13 19 21 25

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, MOISTURE CONTENT: >100%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 5.47$$

$$b = 8.5450E-02$$

CORRELATION COEFFICIENT

$$R = .3413$$

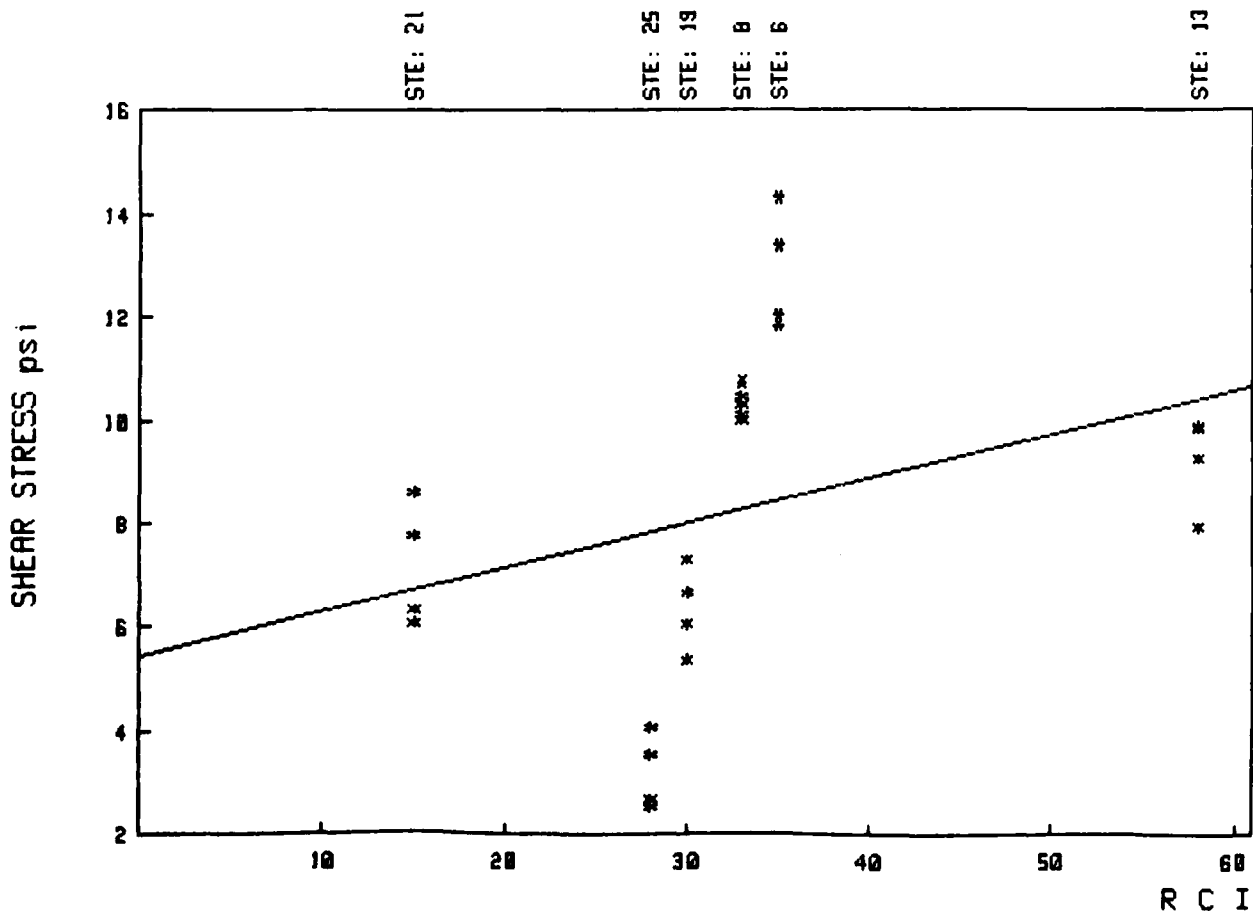


Fig.45

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Moisture Content = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 2 9 11 12 14 18 23 31

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, MOISTURE CONTENT: 20-50%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 1.04$$

$$b = 6.0610E-02$$

CORRELATION COEFFICIENT

$$R = .6070$$

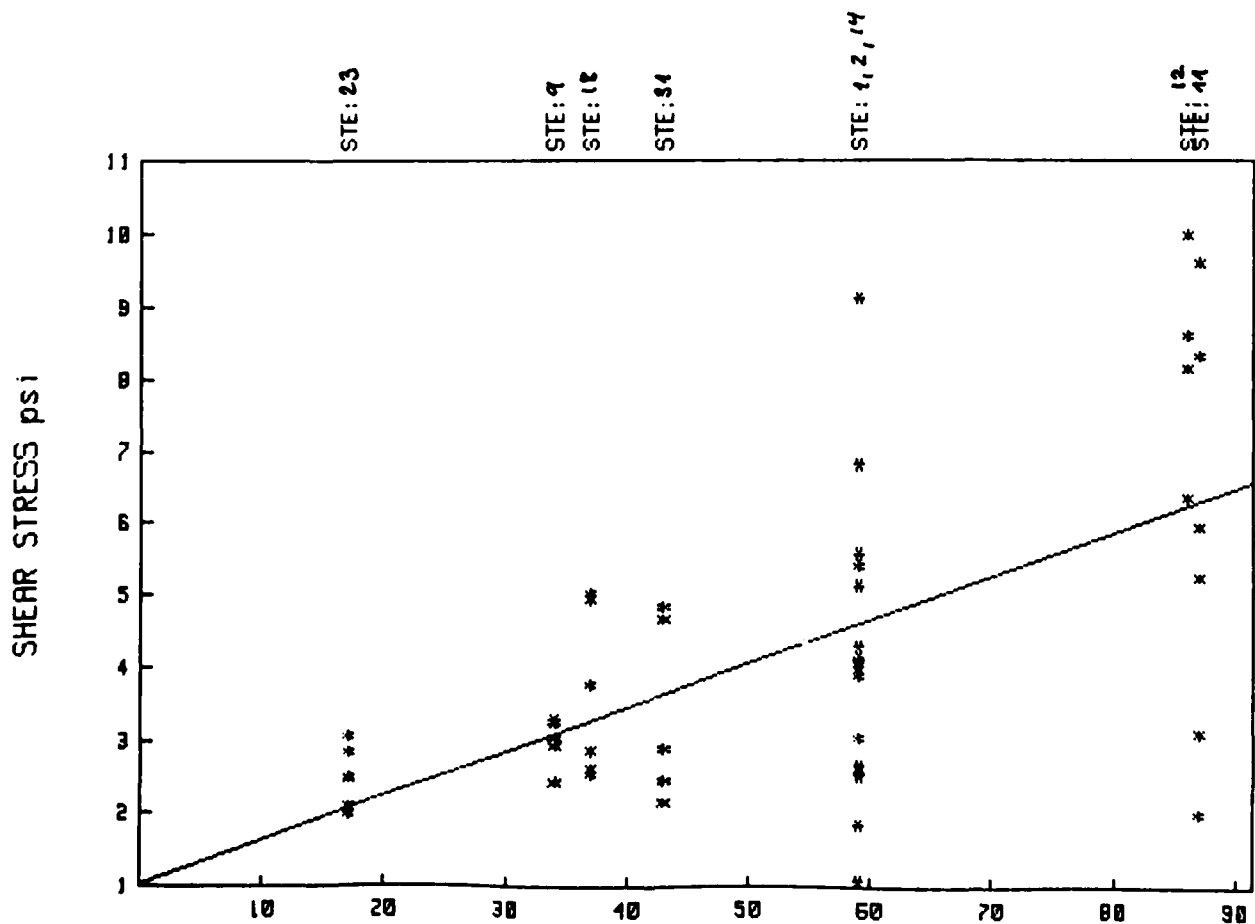


Fig.46

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Moisture Content = const.

RAILROAD AND AVIATION DIVISION, FEDERAL BUREAU OF SURVEY

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 2 9 11 12 14 18 23 31

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, MOISTURE CONTENT: 20-50%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 3.08$$

$$b = 1.2408E-01$$

CORRELATION COEFFICIENT

$$R = .8137$$

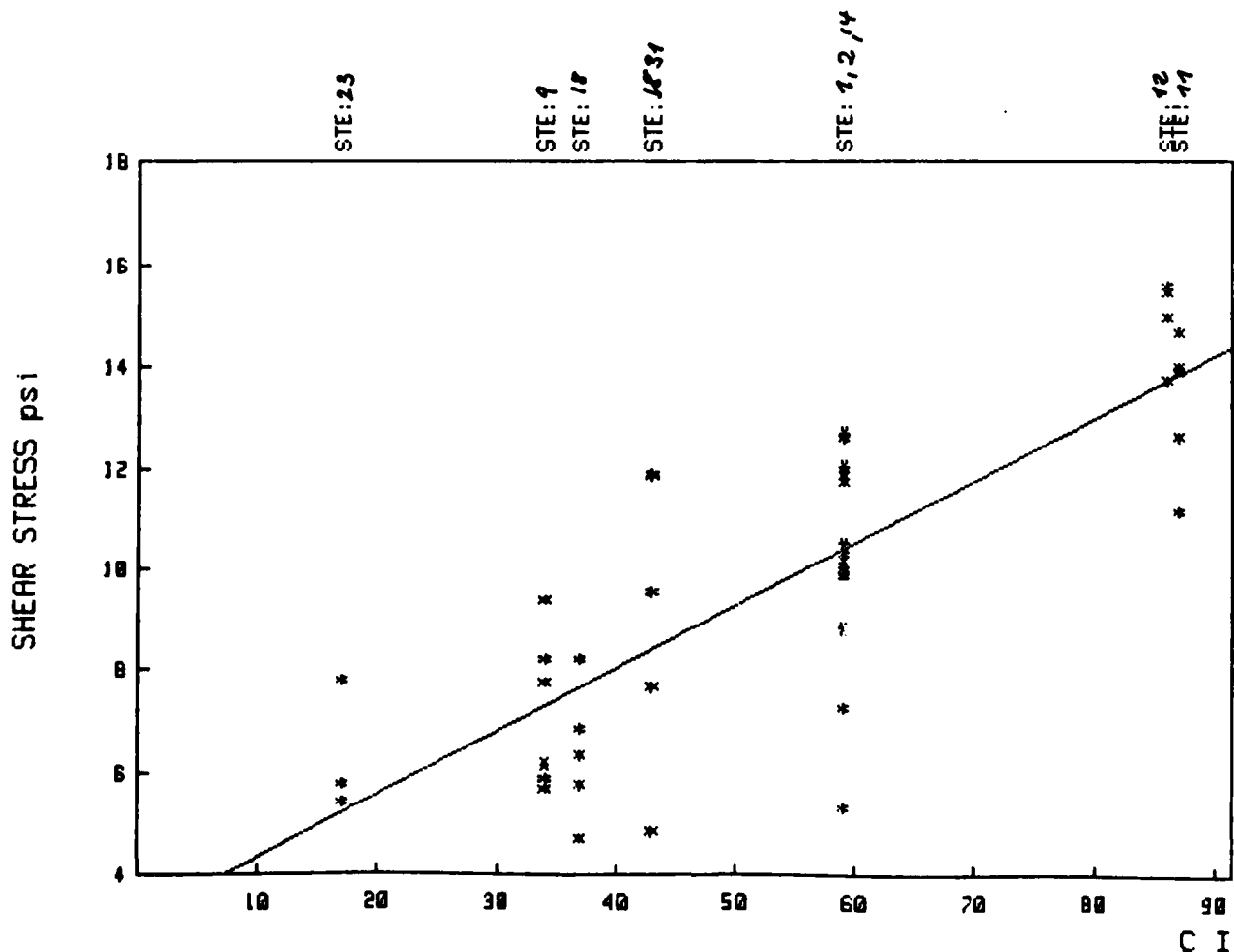


Fig.47

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Moisture Content = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 2 9 11 12 14 18 23 31

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, MOISTURE CONTENT: 20-50%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 4.73$$

$$b = 1.3493E-01$$

CORRELATION COEFFICIENT

$$R = .7969$$

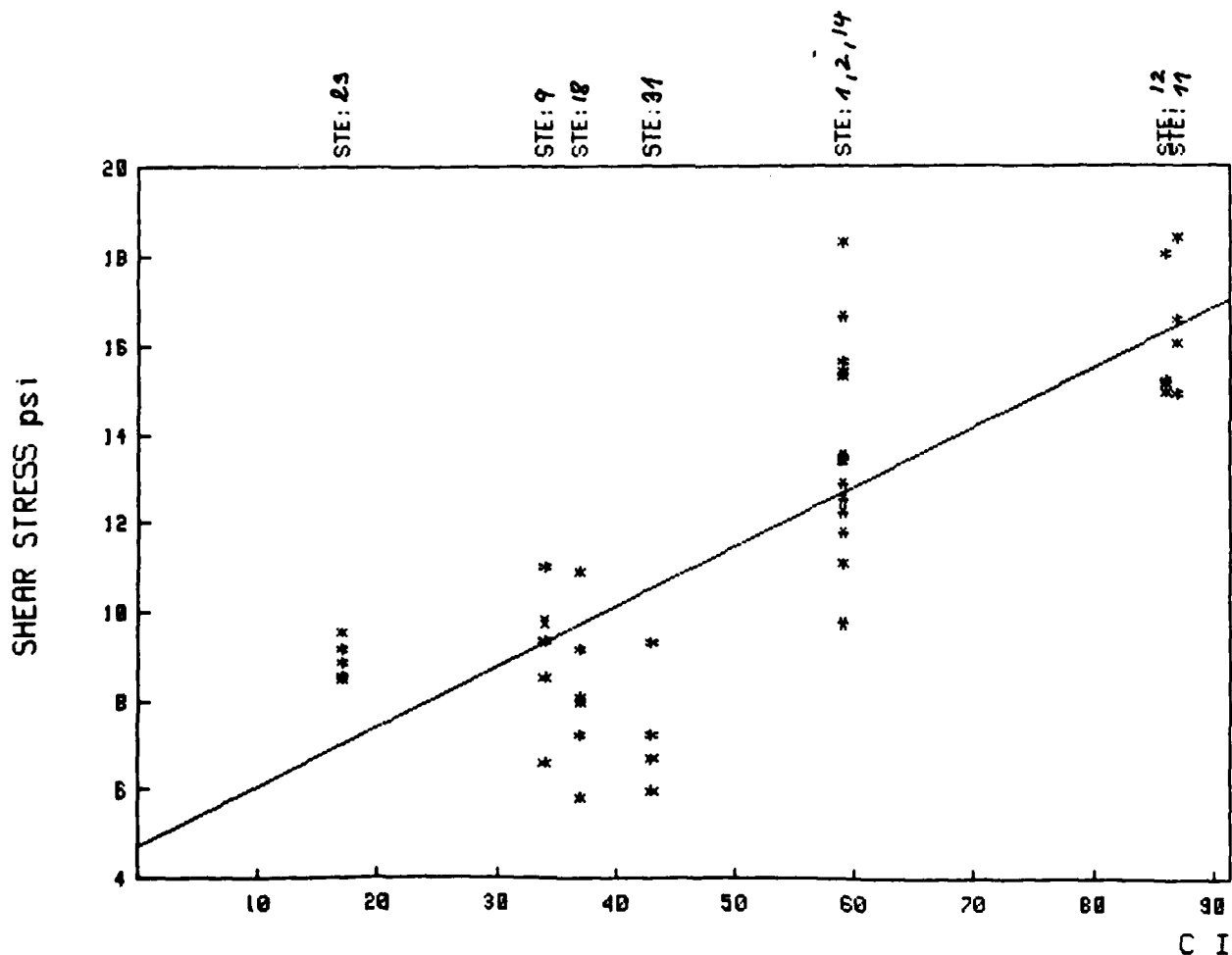


Fig.48

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Moisture Content = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

3 7 10 28 34

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, MOISTURE CONTENT: 50-70%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = -5.23$$

$$b = 2.1029E-01$$

CORRELATION COEFFICIENT

$$R = .7369$$

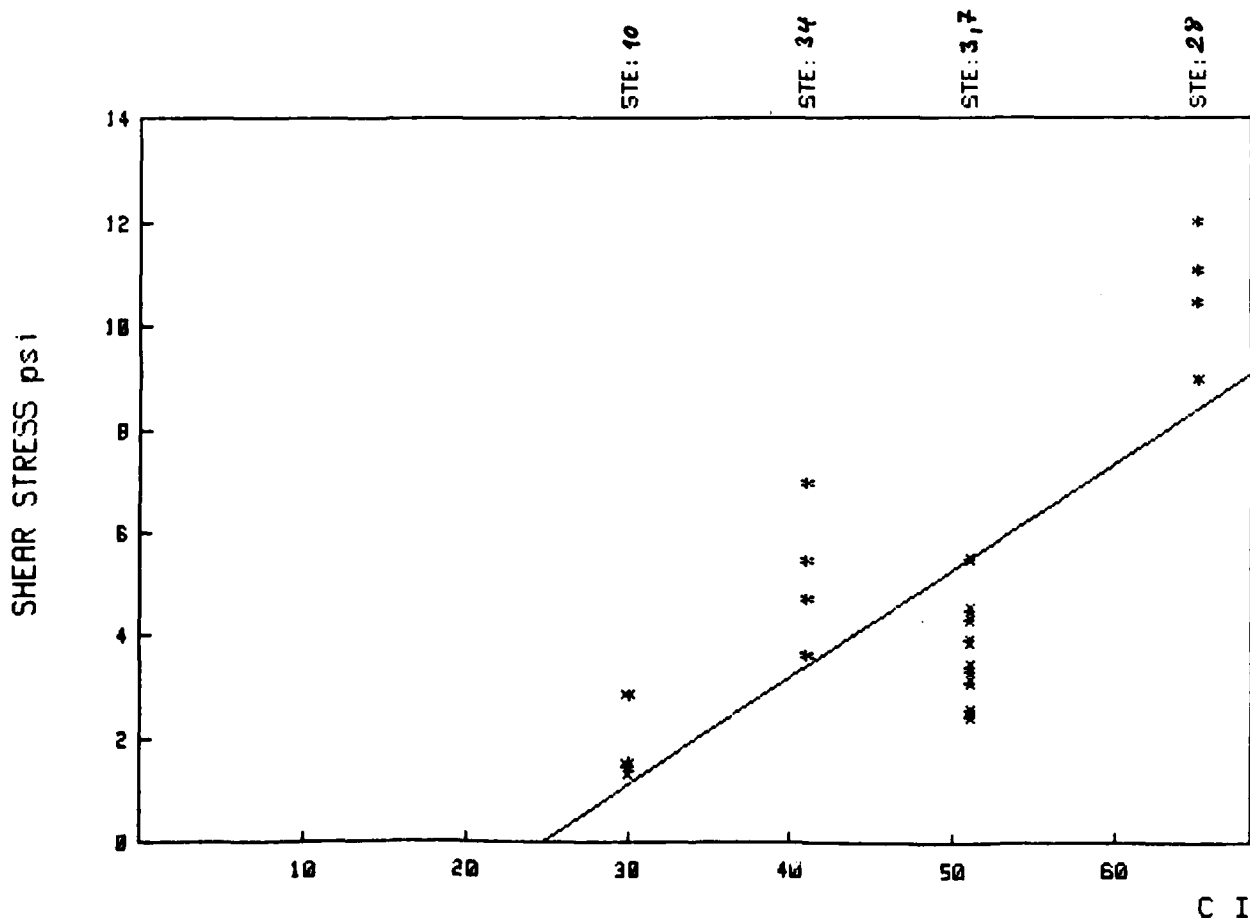


Fig.49

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Moisture Content = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

3 7 10 28 34

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, MOISTURE CONTENT: 50-70%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = -2.89$$

$$b = 2.4797E-01$$

CORRELATION COEFFICIENT

$$R = .6963$$

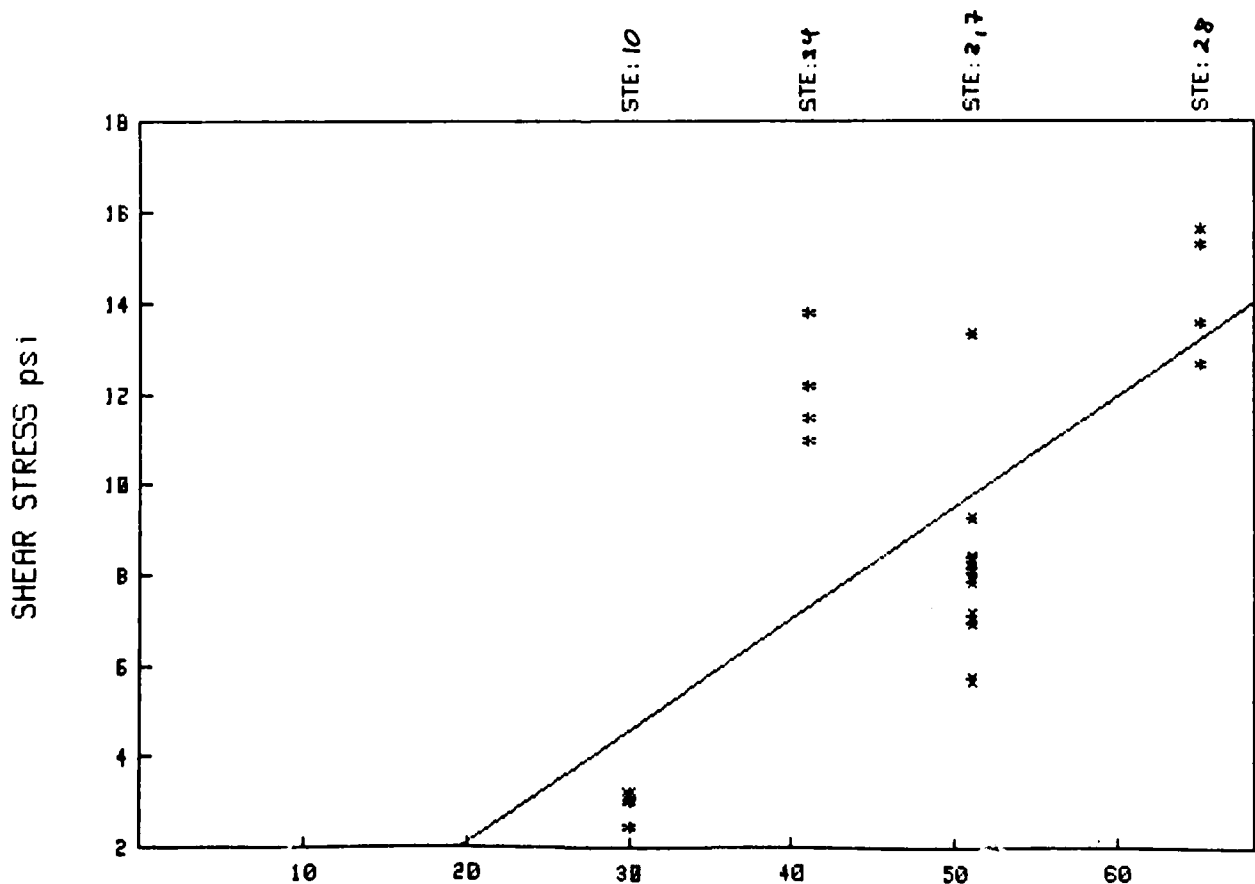


Fig.50

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Moisture Content = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

3 7 10 28 34

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, MOISTURE CONTENT: 50-70%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = -4.91$$

$$b = 3.2030E-01$$

CORRELATION COEFFICIENT

$$R = .7759$$

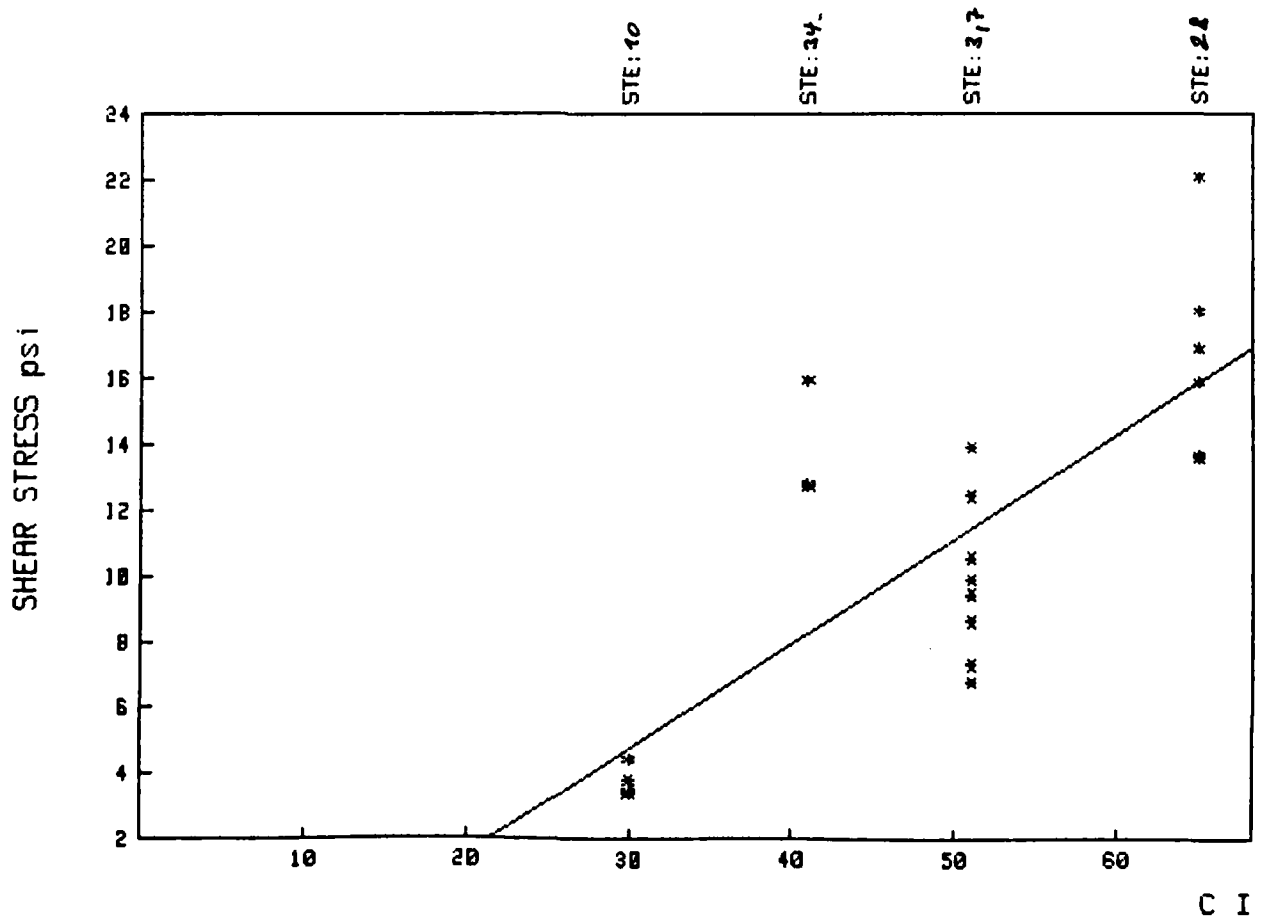


Fig.51

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Moisture Content = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

20 35

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, MOISTURE CONTENT: 70-100%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = -.09$$

$$b = 1.0003E-01$$

CORRELATION COEFFICIENT

$$R = .9133$$

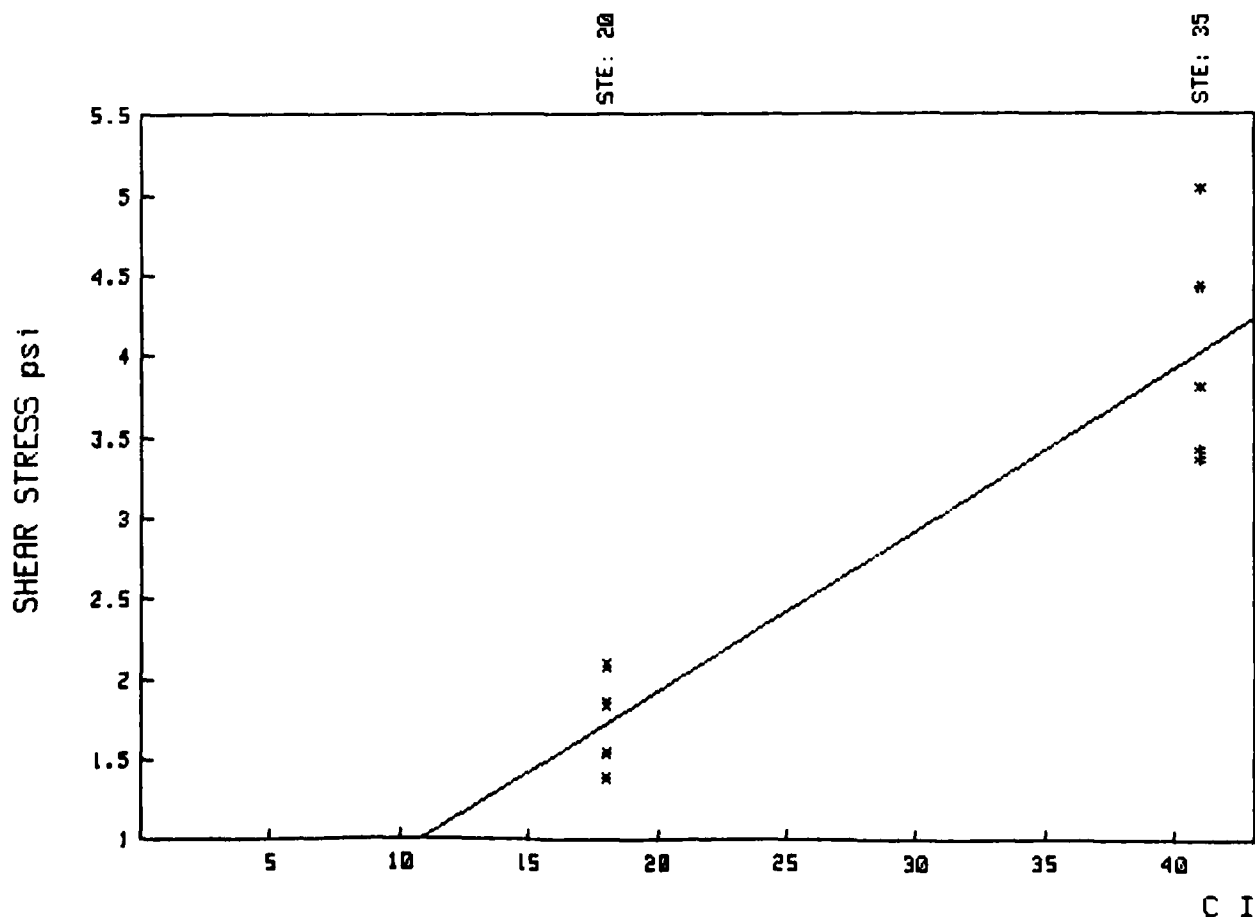


Fig.52

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Moisture Content = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

20 35

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, MOISTURE CONTENT: 70-100%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 1.20$$

$$b = 1.1953E-01$$

CORRELATION COEFFICIENT

$$R = .7228$$

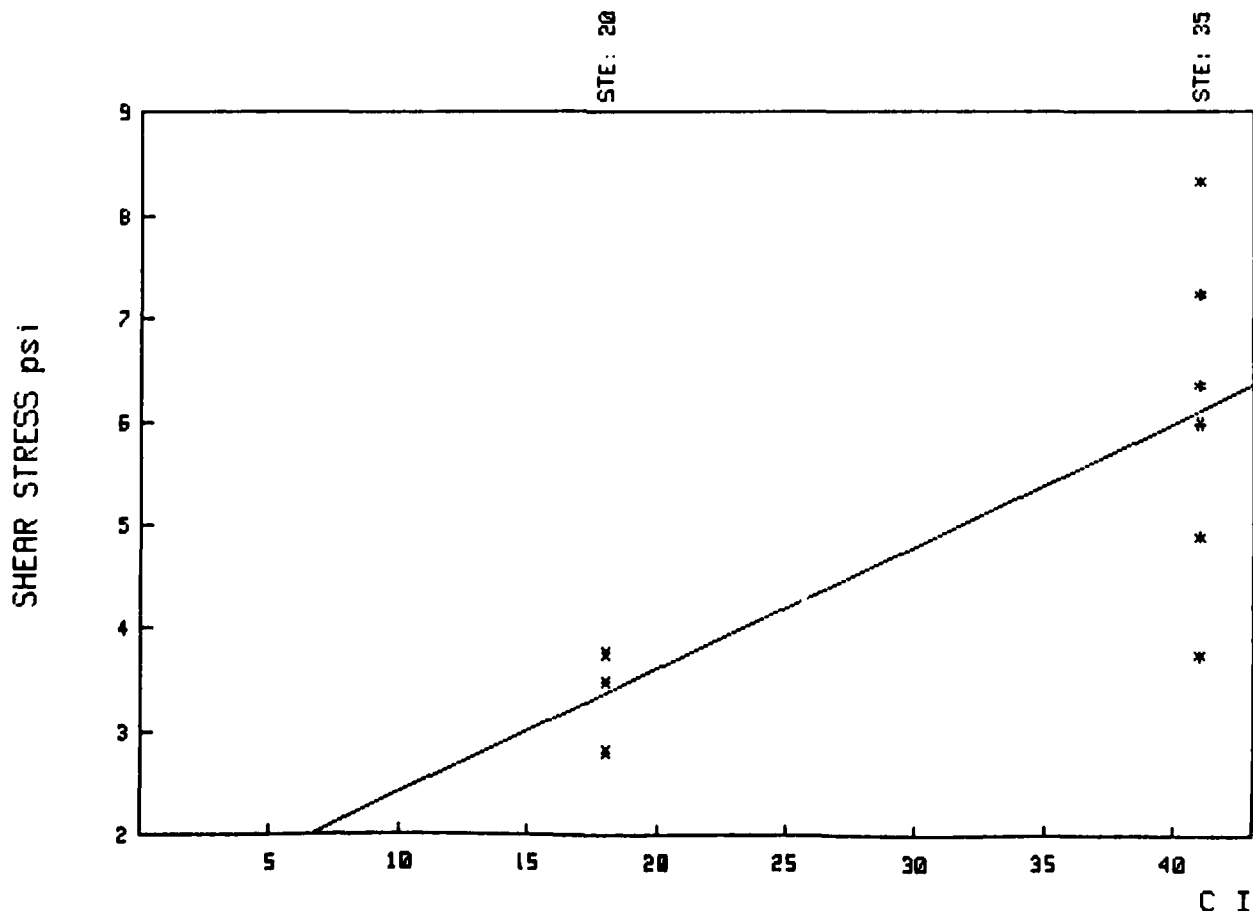


Fig.53

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Moisture Content = const.

DATA FROM INSTITUTE FOR SOIL MECHANICS, CHICAGO, ILL.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

20 35

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, MOISTURE CONTENT: 70-100%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 2.10$$

$$b = 1.0683E-01$$

CORRELATION COEFFICIENT

$$R = .5906$$

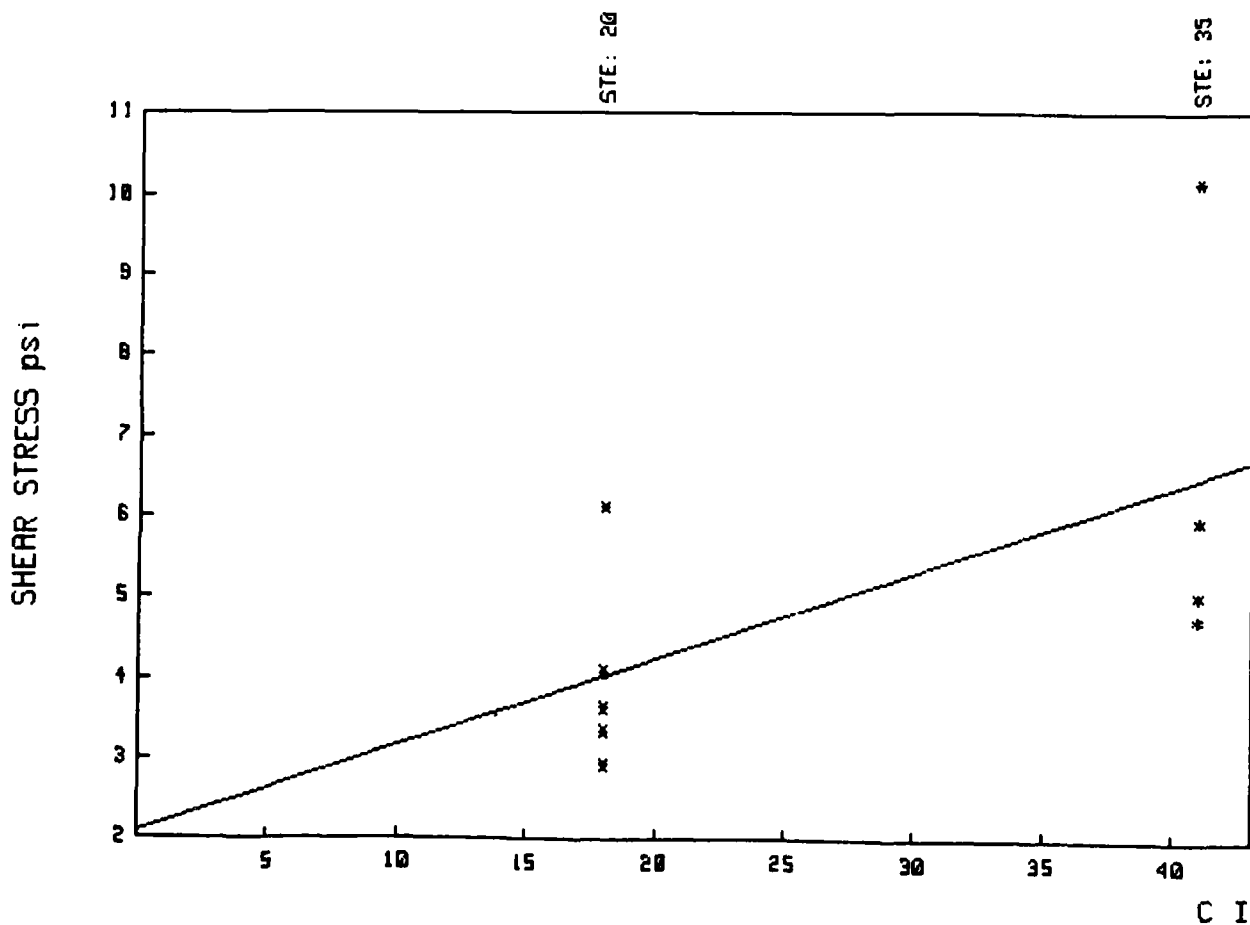


Fig.54

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Moisture Content = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

6 8 13 19 21 25

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, MOISTURE CONTENT: >100%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 1.05$$

$$b = 3.2699E-02$$

CORRELATION COEFFICIENT

$$R = .5452$$

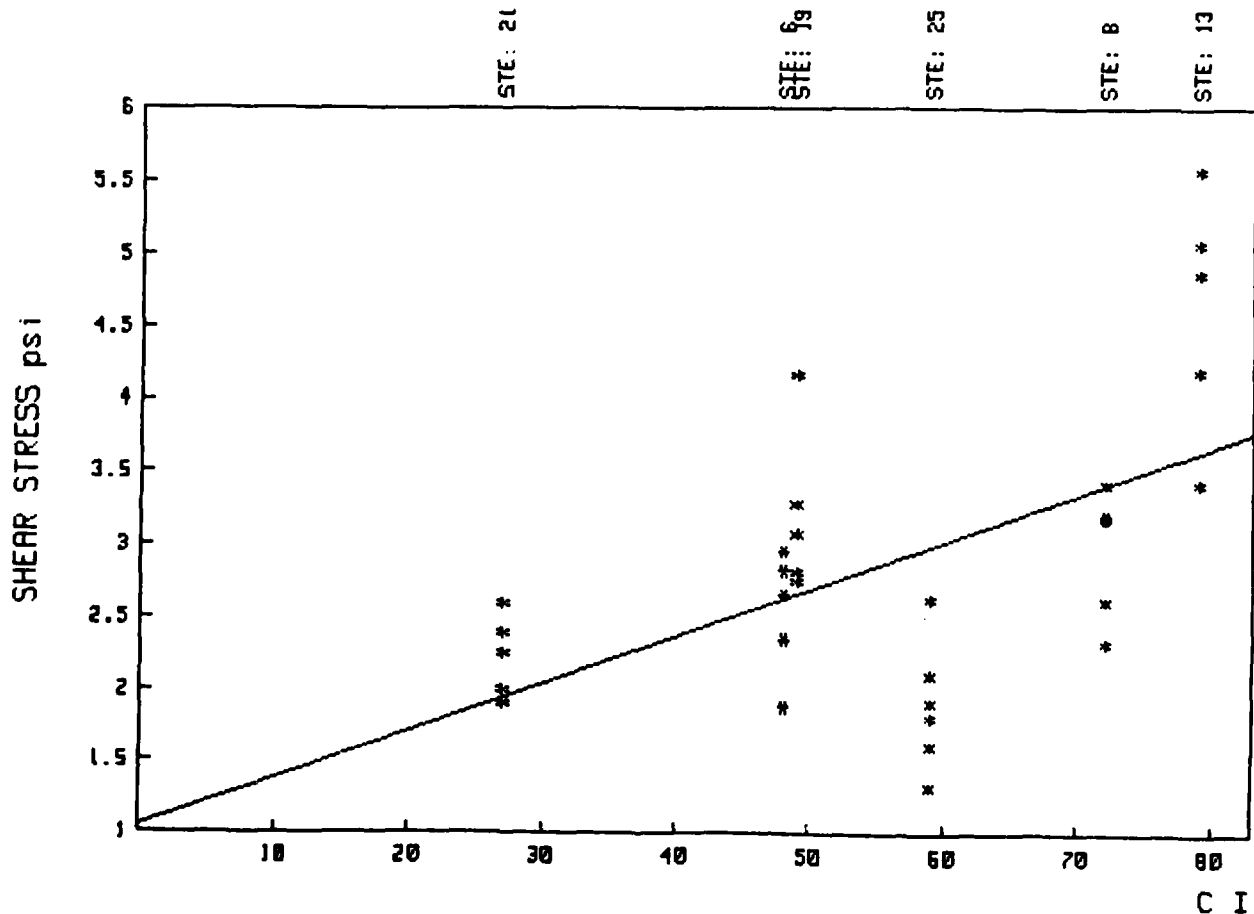


Fig.55

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Moisture Content = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

6 8 13 19 21 25

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, MOISTURE CONTENT: >100%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 2.34$$

$$b = 7.6637E-02$$

CORRELATION COEFFICIENT

$$R = .4189$$

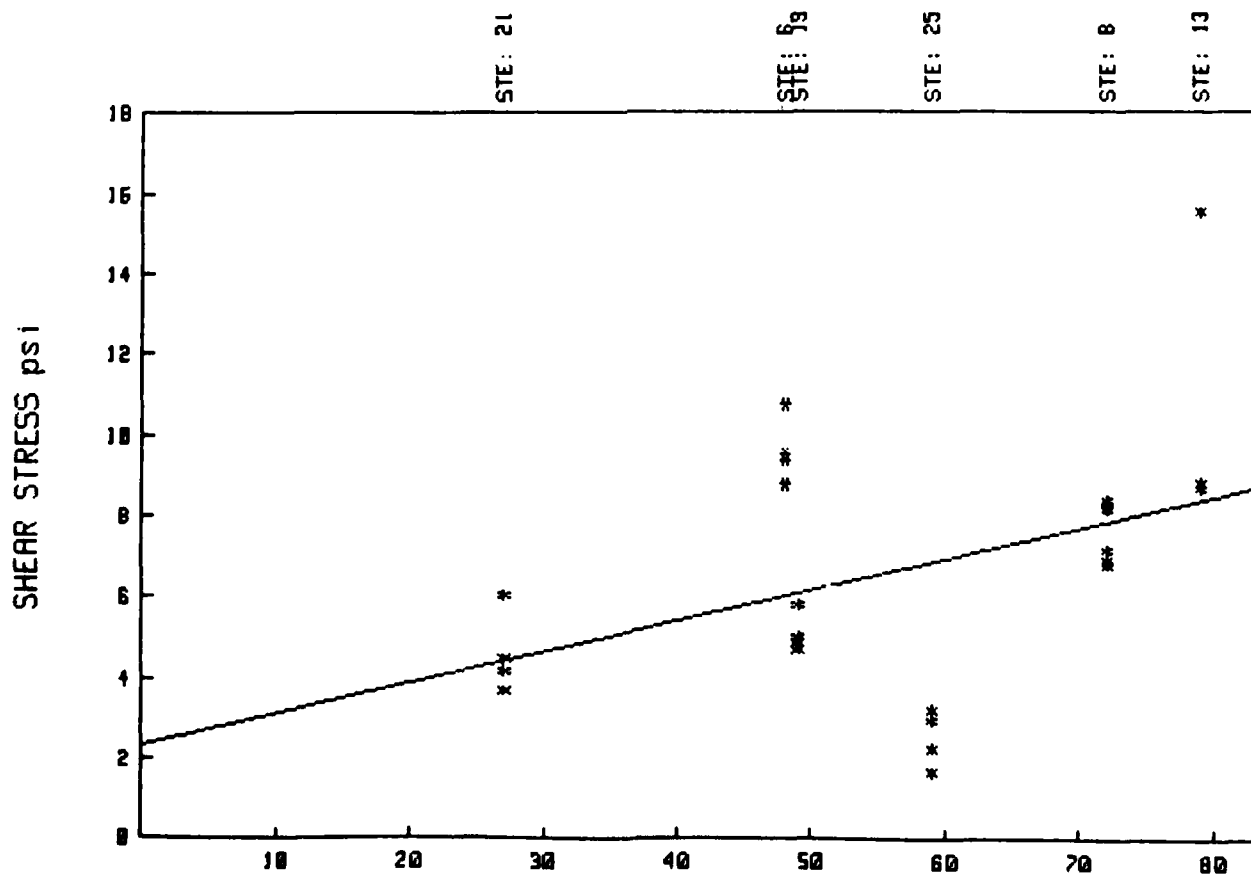


Fig.56

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Moisture Content = const.

RAILROAD INSTITUTE OF TRANSPORTATION

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

6 8 13 19 21 25

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, MOISTURE CONTENT: >100%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 6.56$$

$$b = 3.0924E-02$$

CORRELATION COEFFICIENT

$$R = .1673$$

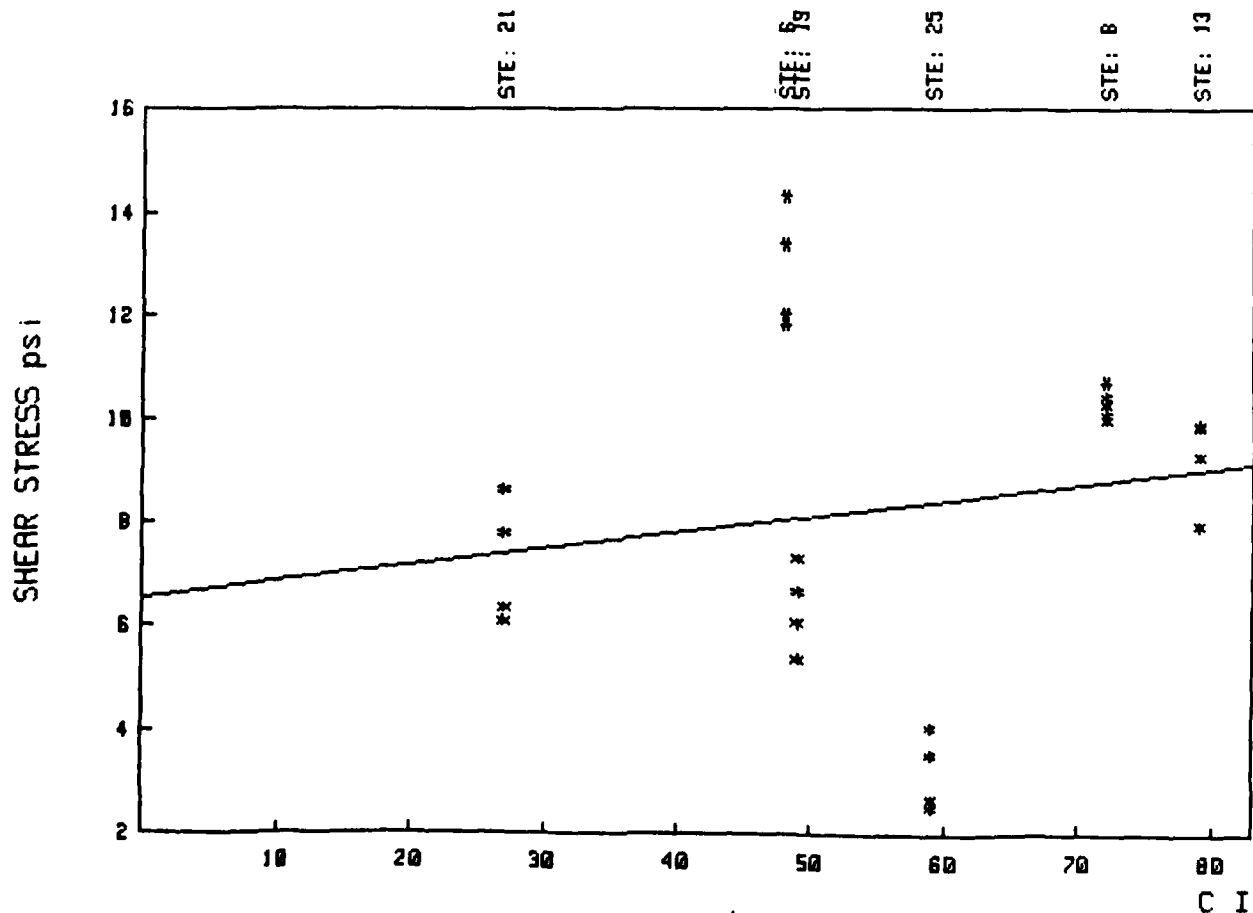


Fig.57

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Moisture Content = const.

DATA FROM INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 3 9 11 12 14 18 20 23

CORRELATION CONSTANTS :

SAMPLE DEPTH: 4 inch, NORMAL STRESS: .5 psi, ORGAN. INGREDIENTS: 5-10%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 2.23$$

$$b = 5.2203E-02$$

CORRELATION COEFFICIENT

$$R = .5458$$

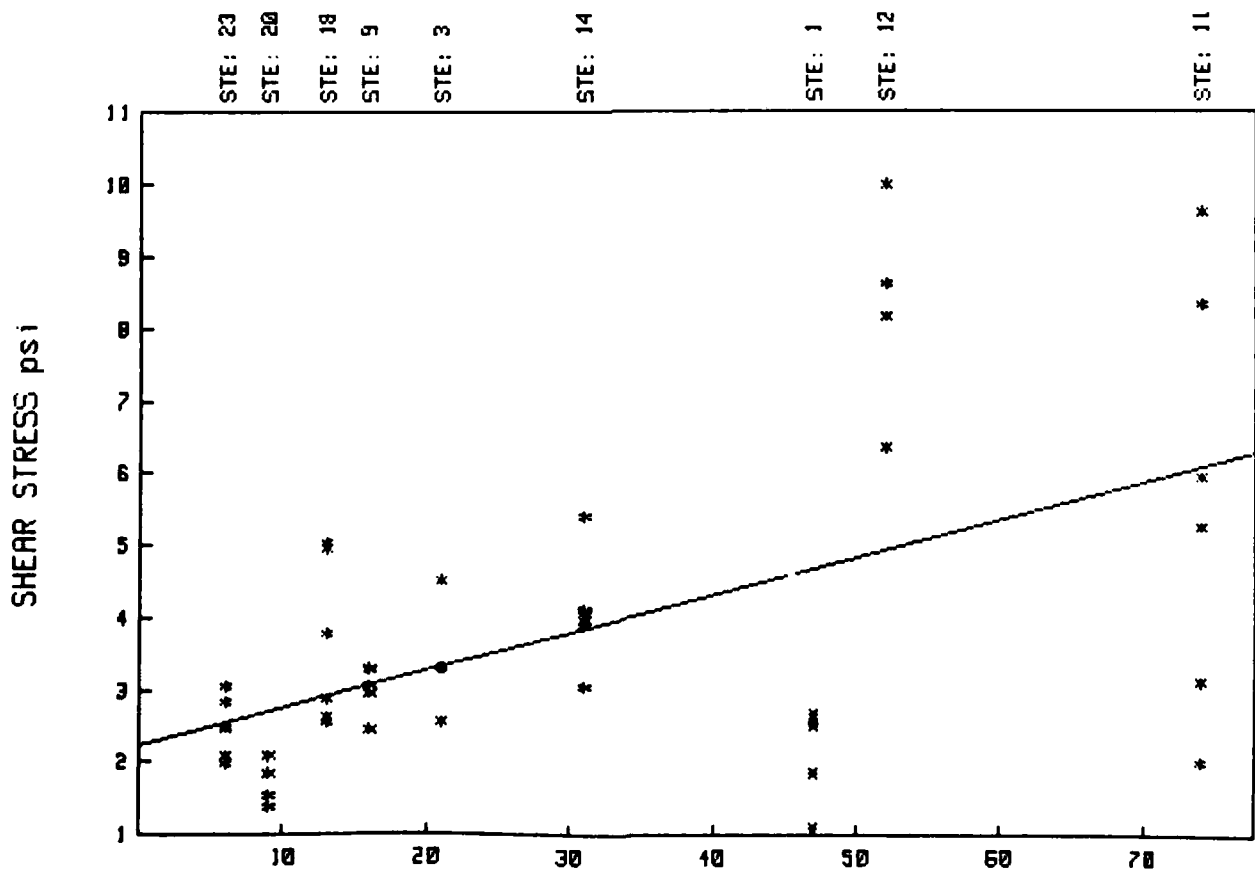


Fig.58

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Organic Ingredients = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 3 9 11 12 14 18 20 23

CORRELATION CONSTANTS :

SAMPLE DEPTH: 4 inch, NORMAL STRESS: 5.6 psi, ORGAN. INGREDIENTS: 5-10%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 5.07$$

$$b = 1.3041E-01$$

CORRELATION COEFFICIENT

$$R = .7954$$

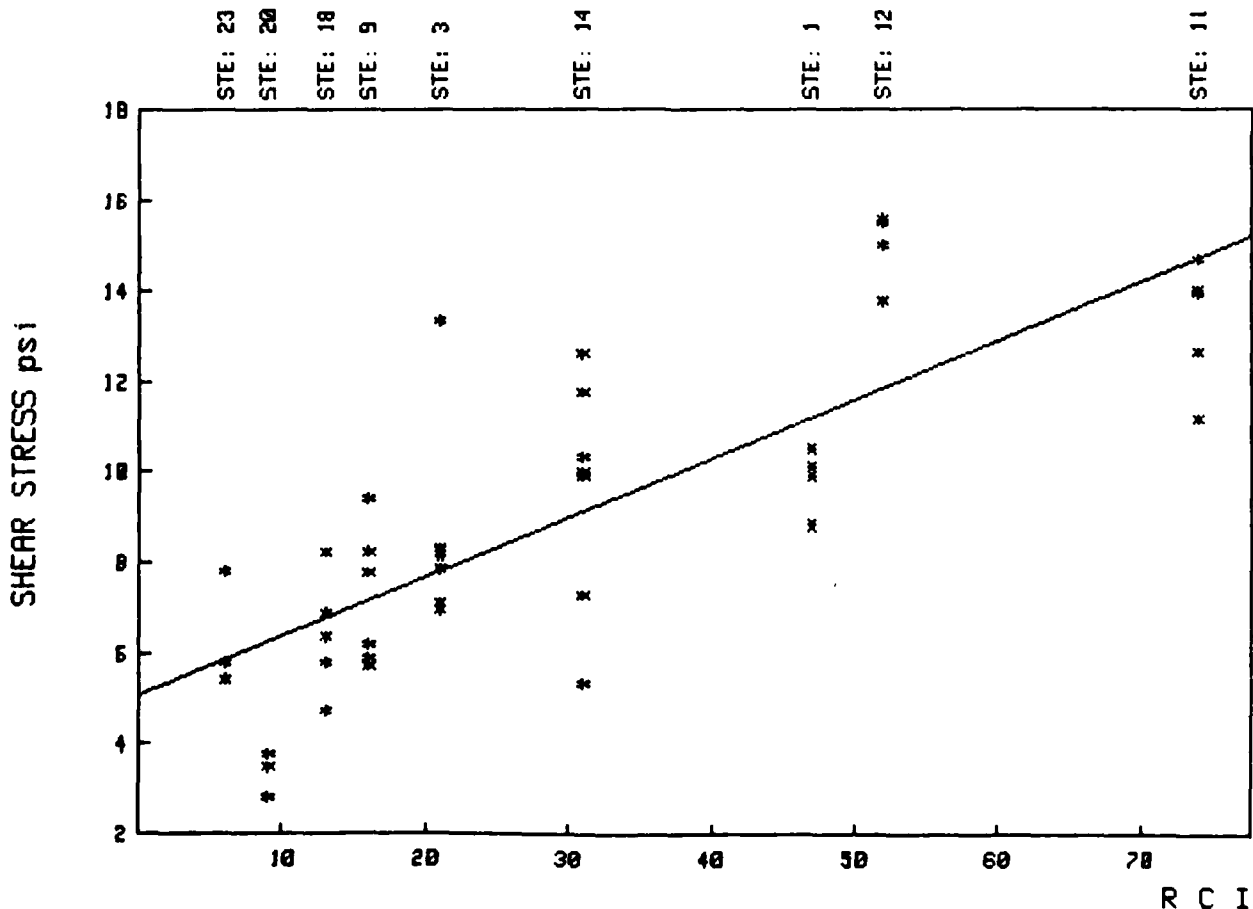


Fig.59

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Organic Ingredients = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 3 9 11 12 14 18 20 23

CORRELATION CONSTANTS :

SAMPLE DEPTH: 4 inch, NORMAL STRESS: 11.25 psi, ORGAN. INGREDIENTS: 5-10%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 6.31$$

$$b = 1.6426E-01$$

CORRELATION COEFFICIENT

$$R = .7942$$

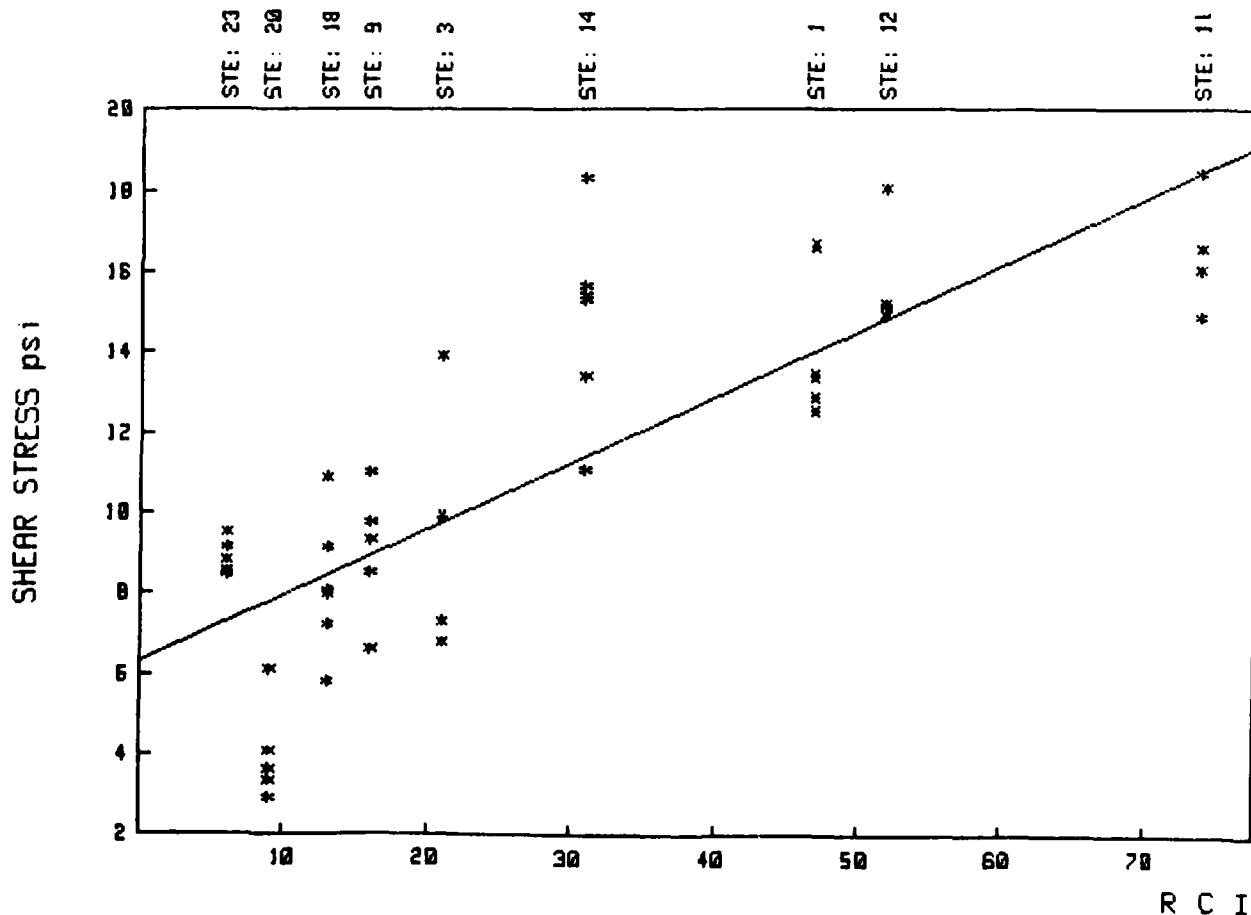


Fig. 60

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Organic Ingredients = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

25 28 31 34 35

CORRELATION CONSTANTS :

SAMPLE DEPTH: 4 inch, NORMAL STRESS: .5 psi, ORGAN. INGREDIENTS: 10-20%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = -1.83$$

$$b = 2.3371E-01$$

CORRELATION COEFFICIENT

$$R = .4924$$

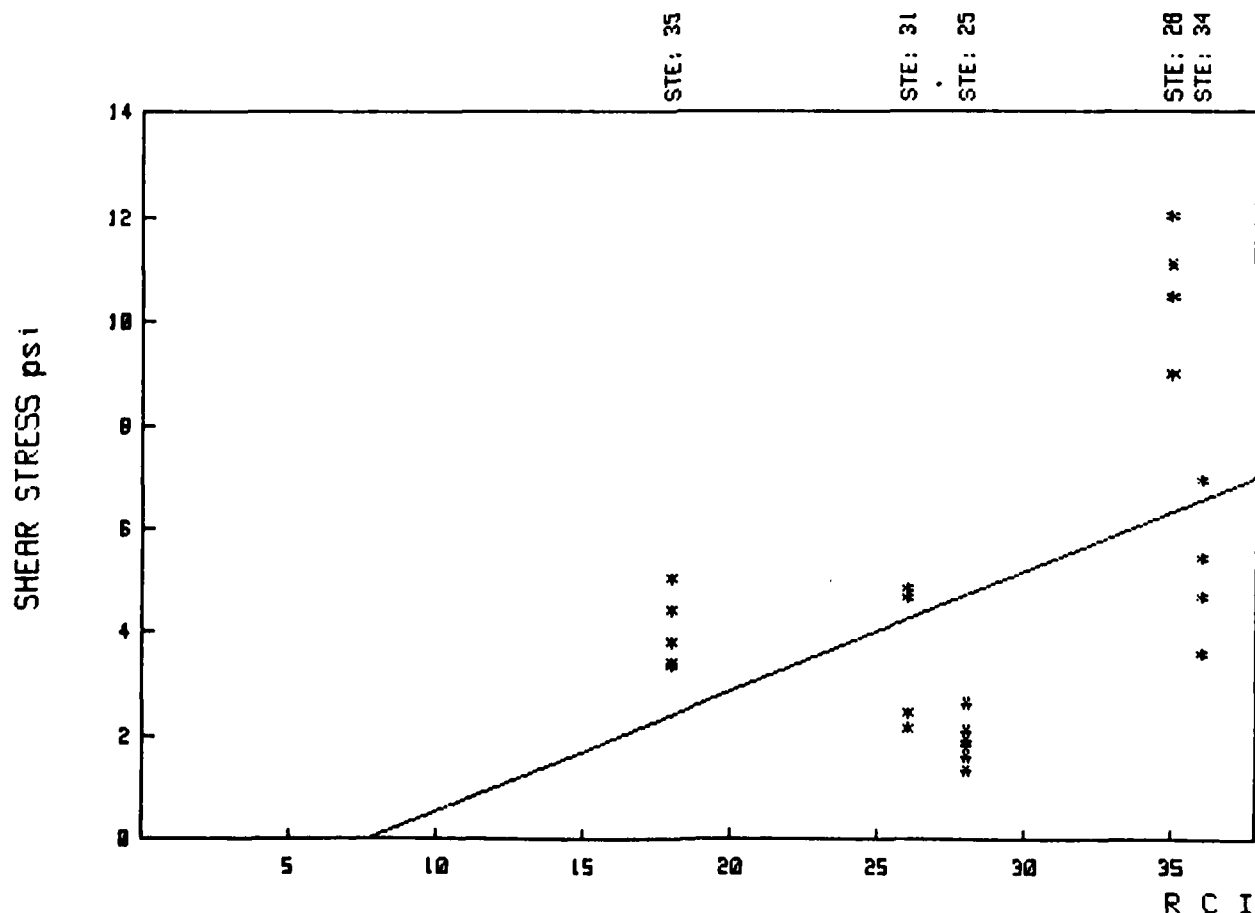


Fig.61

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Organic Ingredients = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

25 28 31 34 35

CORRELATION CONSTANTS :

SAMPLE DEPTH: 4 inch, NORMAL STRESS: 5.6 psi, ORGAN. INGREDIENTS: 10-20%

LINEAR REGRESSION:

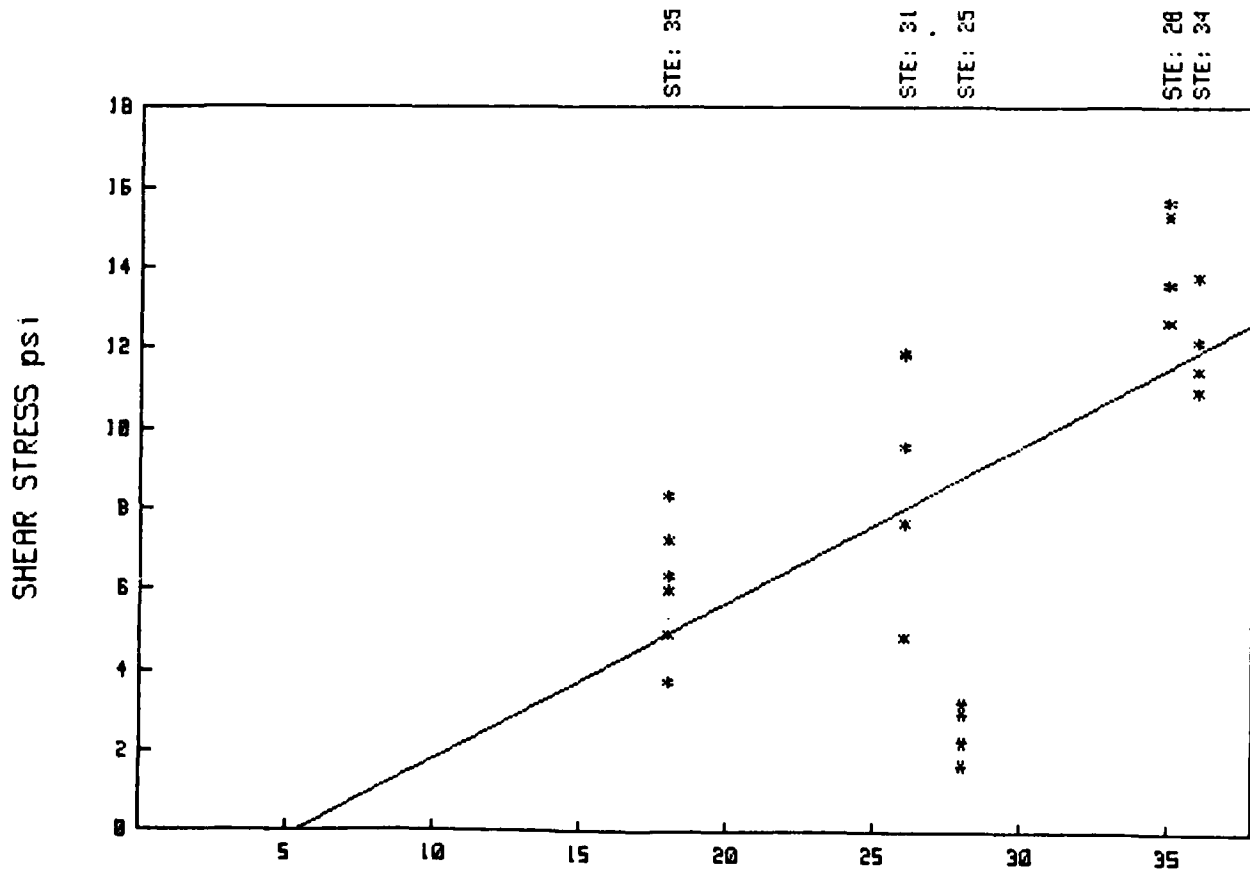
$$Y = a + b * X$$

$$a = -2.13$$

$$b = 3.8997E-01$$

CORRELATION COEFFICIENT

$$R = .6167$$



INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

25 28 31 34 35

CORRELATION CONSTANTS :

SAMPLE DEPTH: 4 inch, NORMAL STRESS: 11.25 psi, ORGAN. INGREDIENTS: 10-20%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = -7.49$$

$$b = 6.0586E-01$$

CORRELATION COEFFICIENT

$$R = .7007$$

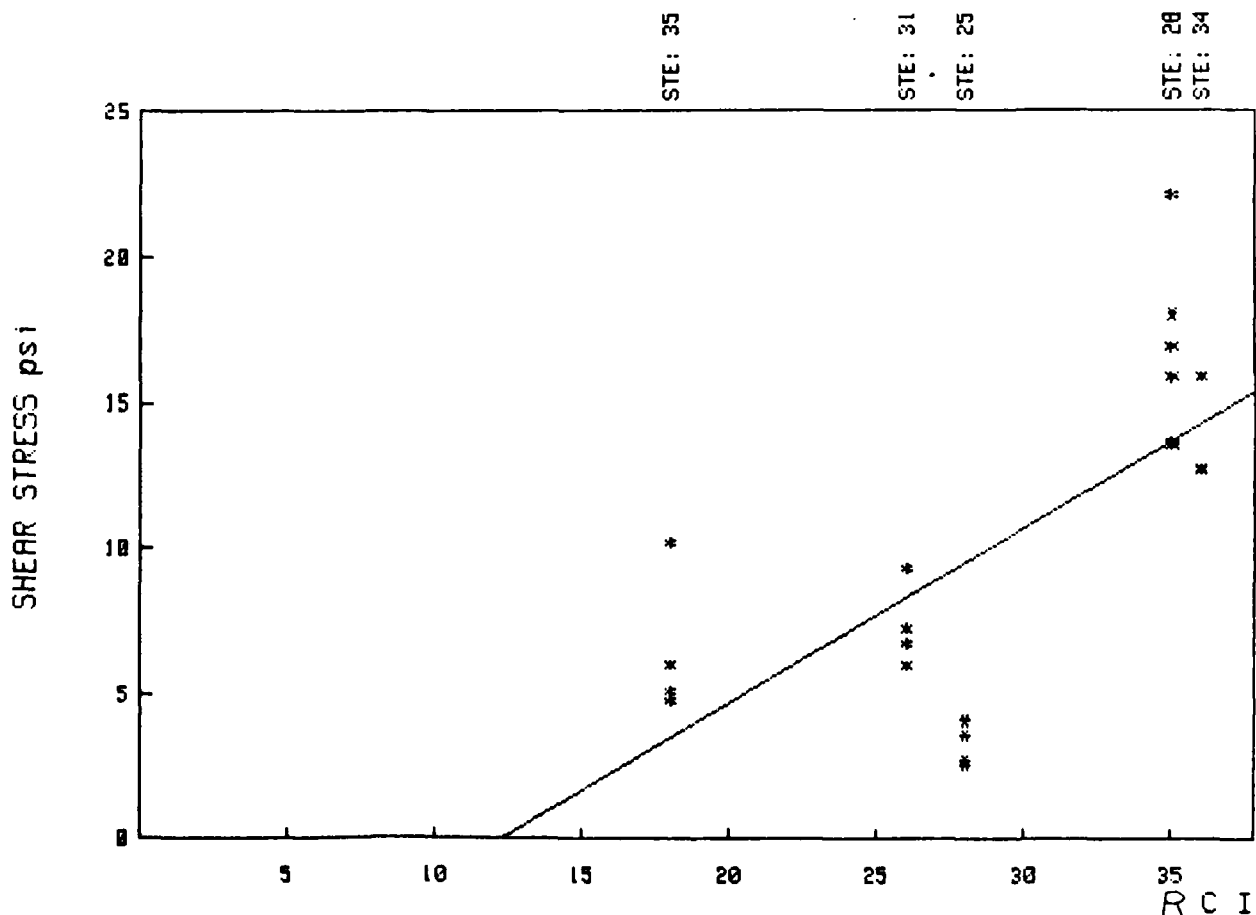


Fig.63

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Organic Ingredients = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

6 8 19 21 27

CORRELATION CONSTANTS :

SAMPLE DEPTH: 4 inch, NORMAL STRESS: .5 psi, ORGAN. INGREDIENTS: > 20%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 2.09$$

$$b = 3.2785E-02$$

CORRELATION COEFFICIENT

$$R = .2837$$

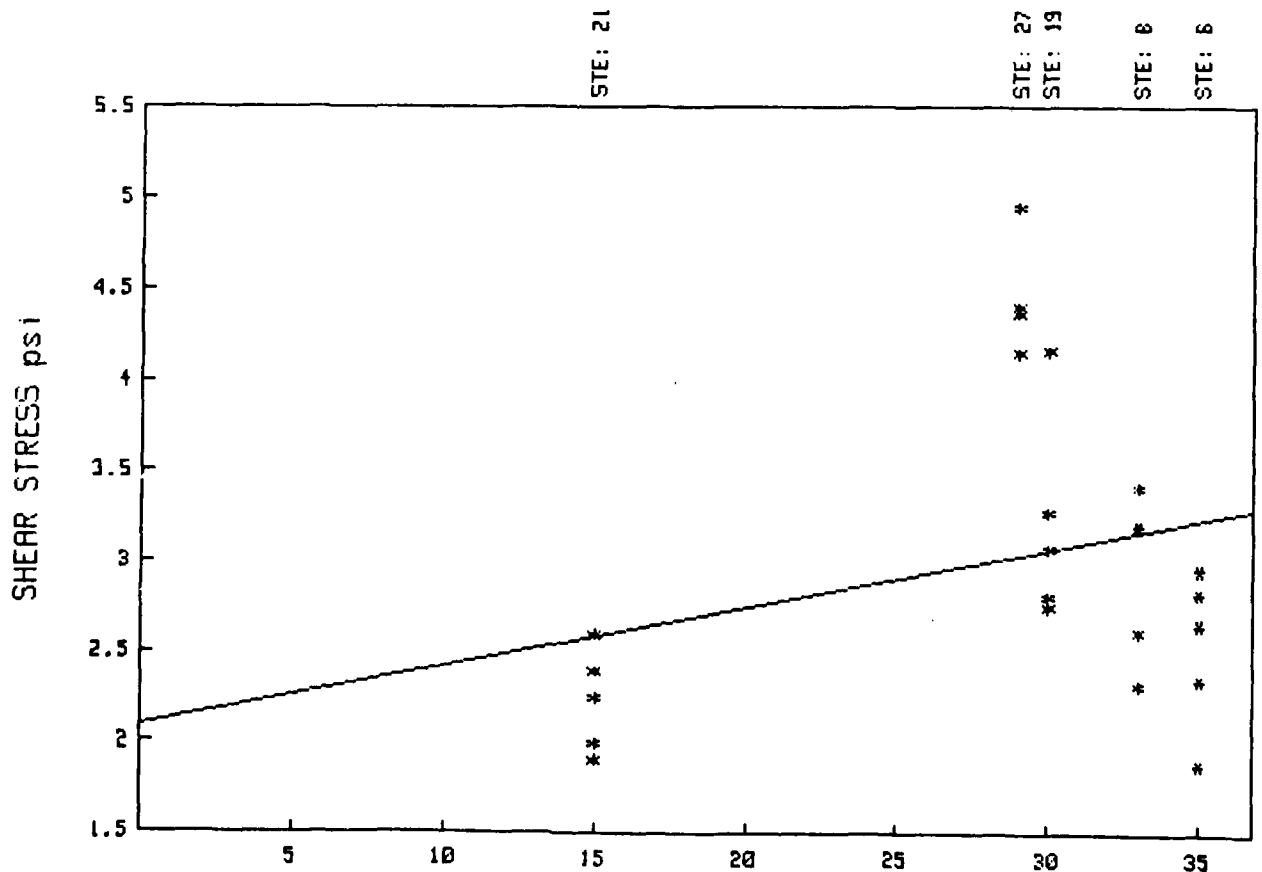


Fig.64

Correlation of Cone Index/Box Data for Organic Ingredients = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

6 8 19 21 27

CORRELATION CONSTANTS :

SAMPLE DEPTH: 4 inch, NORMAL STRESS: 5.6 psi, ORGAN. INGREDIENTS: >20%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 1.34$$

$$b = 2.0032E-01$$

CORRELATION COEFFICIENT

$$R = .6940$$

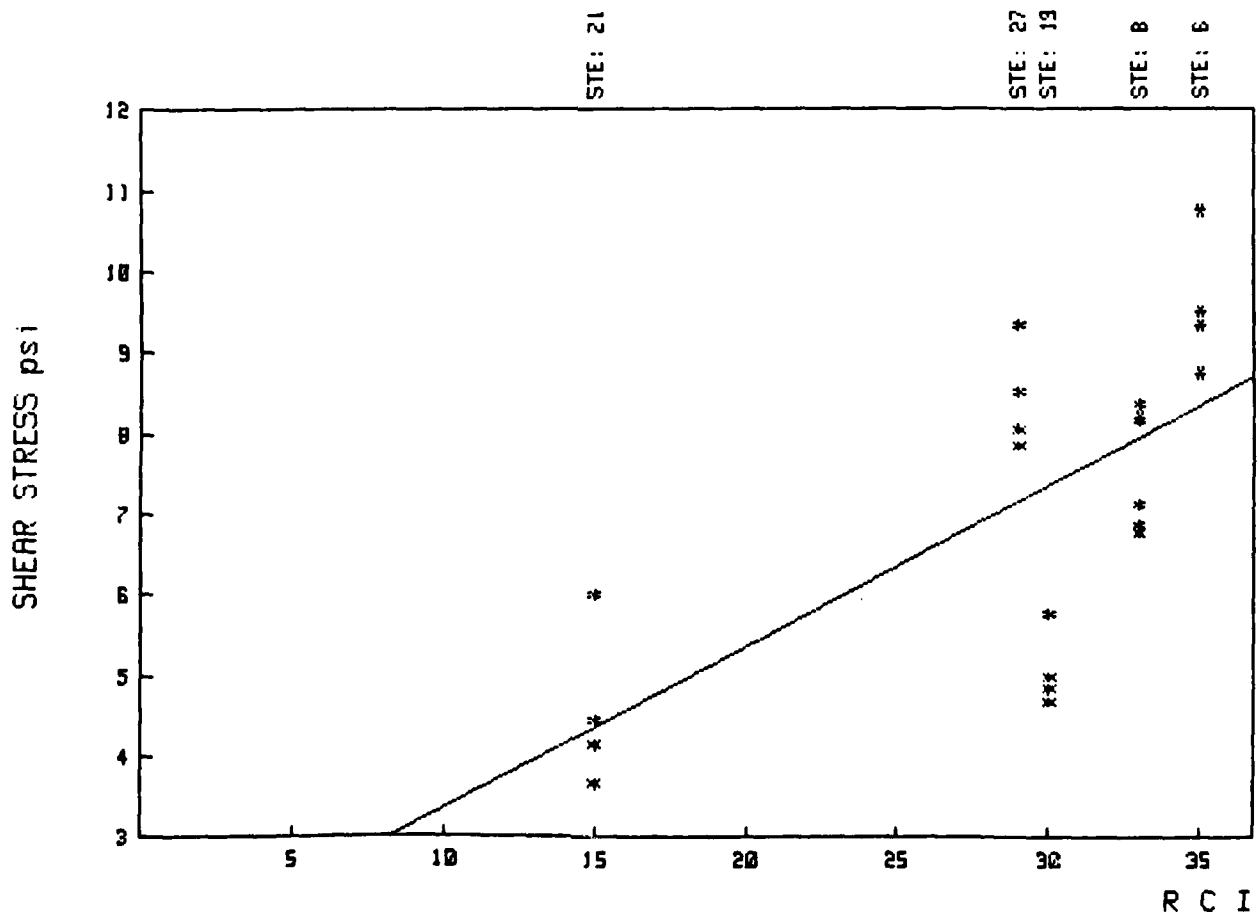


Fig.65

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Organic Ingredients = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

6 8 19 21 27

CORRELATION CONSTANTS :

SAMPLE DEPTH: 4 inch, NORMAL STRESS: 11.25 psi, ORGAN. INGREDIENTS: >20%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 3.49$$

$$b = 2.1290E-01$$

CORRELATION COEFFICIENT

$$R = .5746$$

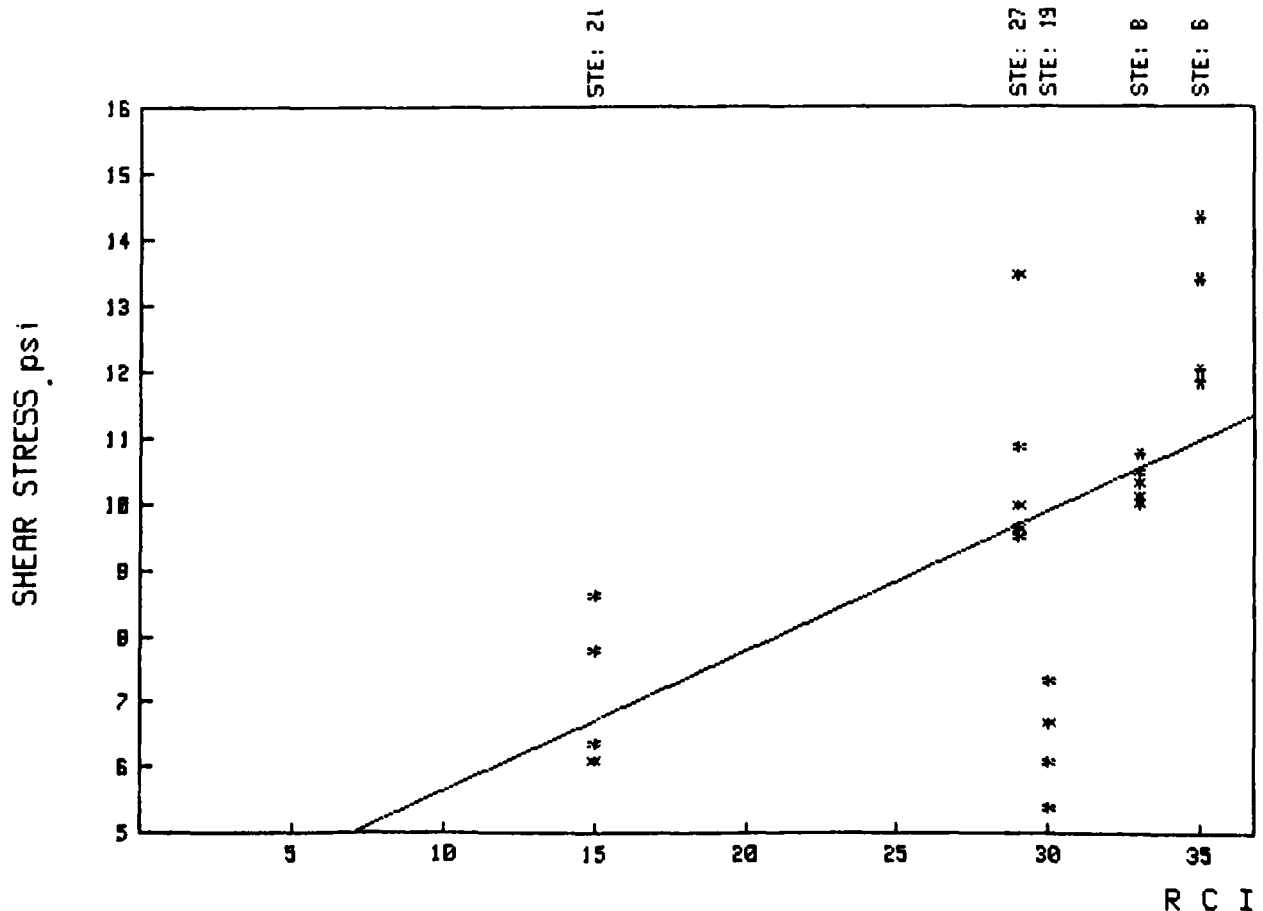


Fig.66

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Organic Ingredients = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 3 9 11 12 14 18 20 23

CORRELATION CONSTANTS :

SAMPLE DEPTH: 4 inch, NORMAL STRESS: .5 psi, ORGAN. INGREDIENTS: 5-10%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = .85$$

$$b = 5.9400E-02$$

CORRELATION COEFFICIENT

$$R = .6718$$

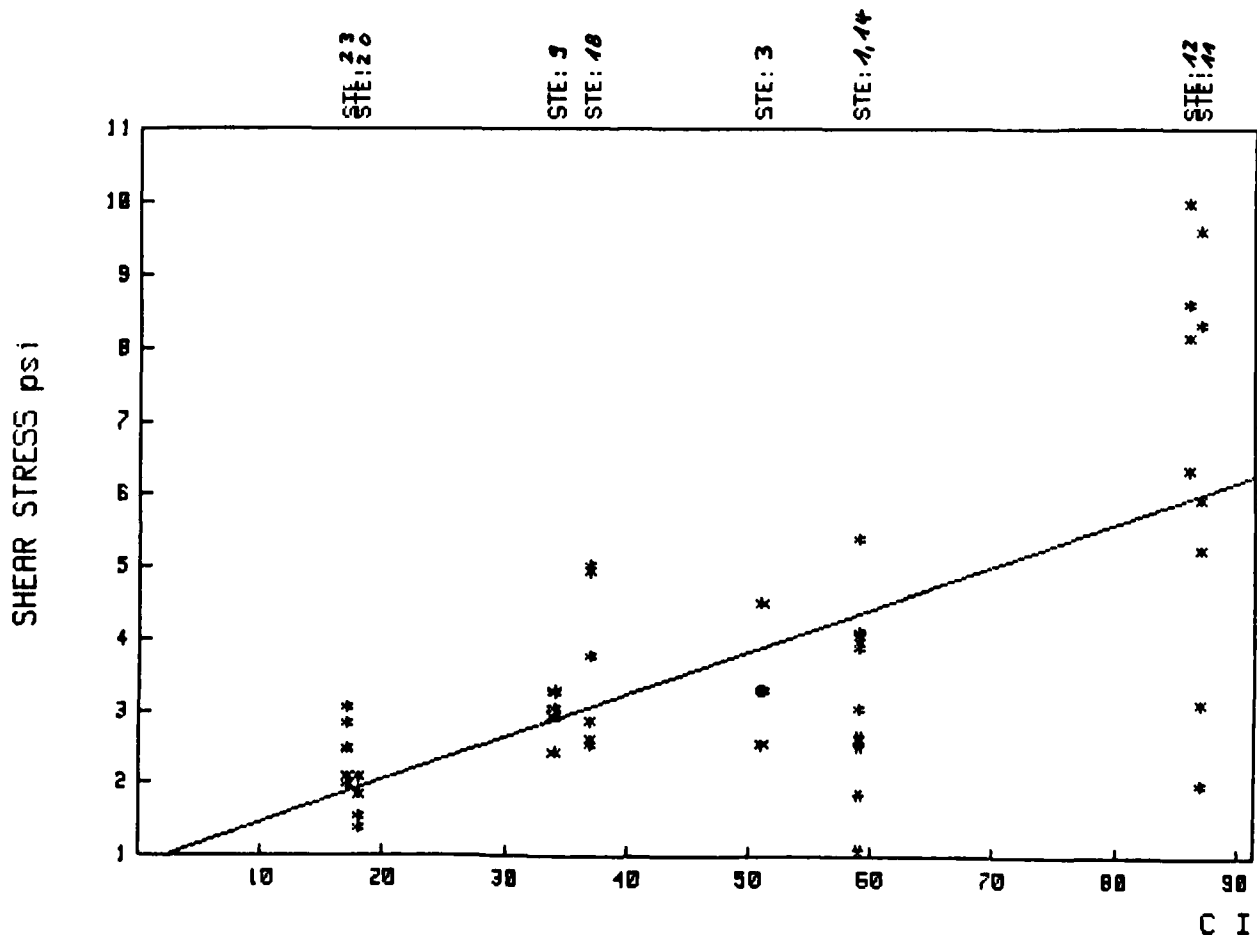


Fig.67

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Organic Ingredients = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 3 9 11 12 14 18 20 23

CORRELATION CONSTANTS :

SAMPLE DEPTH: 4 inch, NORMAL STRESS: 5.6 psi, ORGAN. INGREDIENTS: 5-10%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 2.13$$

$$b = 1.3325E-01$$

CORRELATION COEFFICIENT

$$R = .8644$$

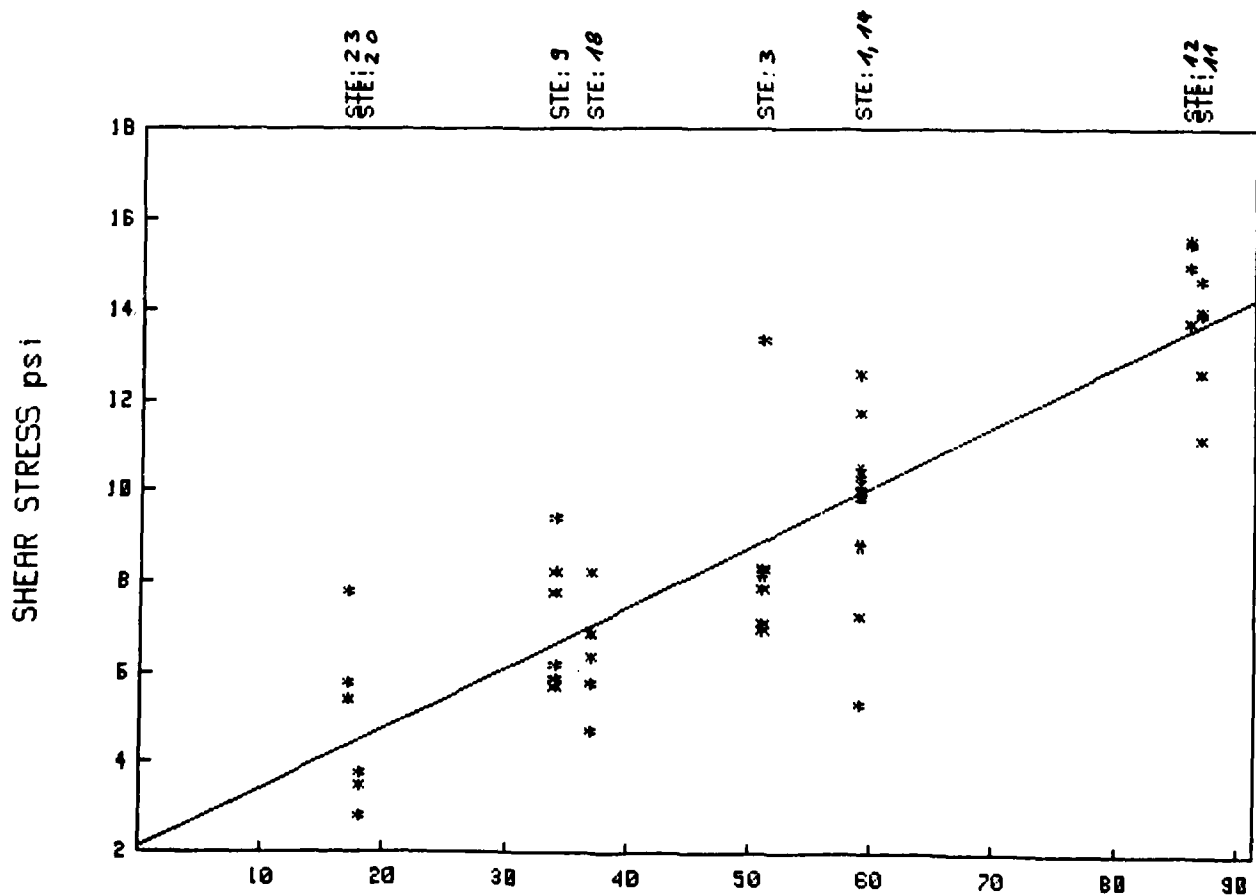


Fig.68

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Organic Ingredients = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 3 9 11 12 14 18 20 23

CORRELATION CONSTANTS :

SAMPLE DEPTH: 4 inch, NORMAL STRESS: 11.25 psi, ORGAN. INGREDIENTS: 5-10%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 3.65$$

$$b = 1.5128E-01$$

CORRELATION COEFFICIENT

$$R = .8227$$

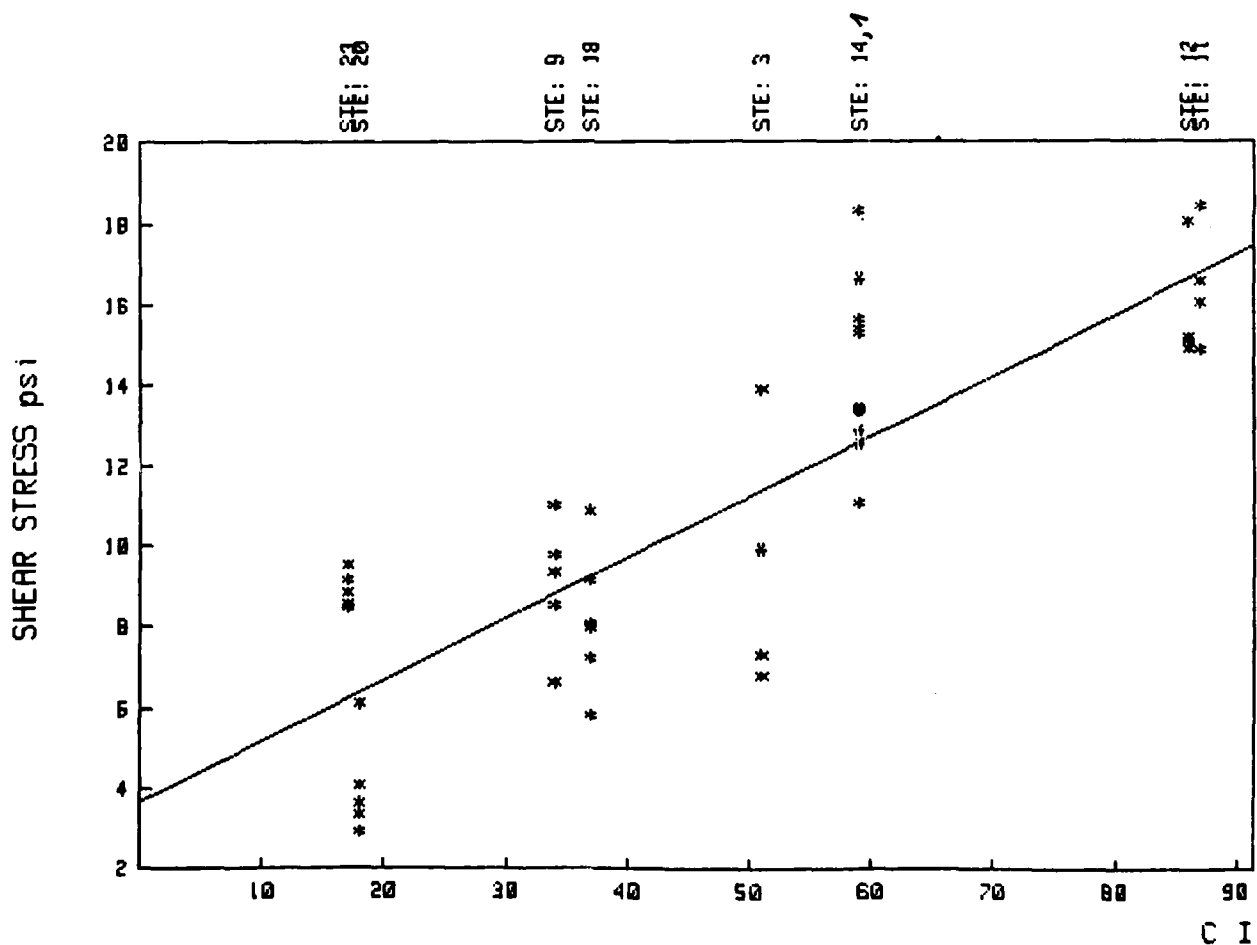


Fig.69

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Organic Ingredients = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

25 28 31 34 35

CORRELATION CONSTANTS :

SAMPLE DEPTH: 4 inch, NORMAL STRESS: .5 psi, ORGAN. INGREDIENTS: 10-20%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = -.74$$

$$b = 1.0903E-01$$

CORRELATION COEFFICIENT

$$R = .3548$$

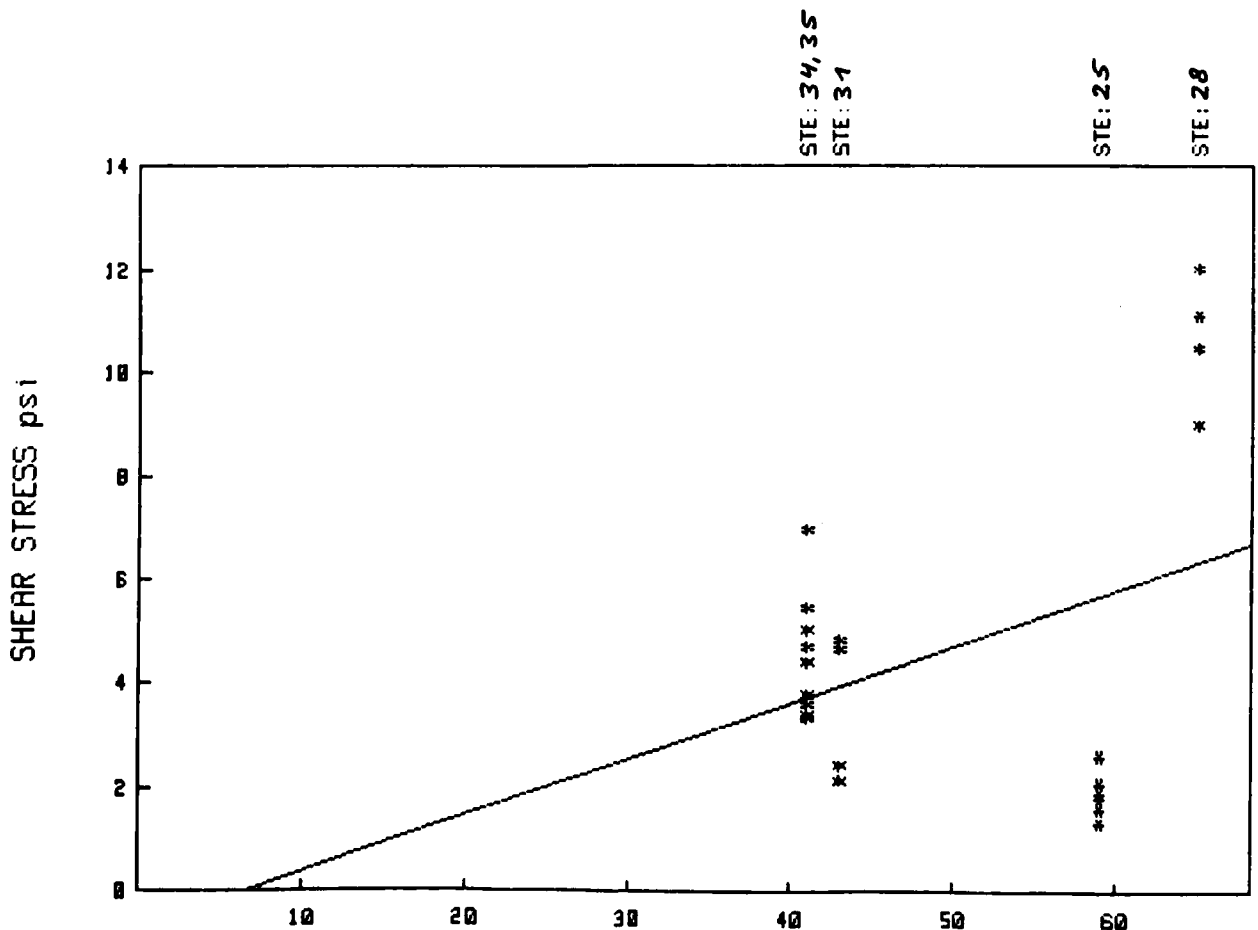


Fig.70

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Organic Ingredients = const.

BATTELLE INSTITUTE FOR ENVIRONMENTAL SCIENCES

SITE NO.:

25 28 31 34 35

CORRELATION CONSTANTS :

SAMPLE DEPTH: 4 inch,NORMAL STRESS: 5.6 psi,ORGAN. INGREDIENTS: 10-20%

LINEAR REGRESSION:

$$Y = a + b * X$$

a = 6.17

b = 5.0287E-02

CORRELATION COEFFICIENT

R = .1152

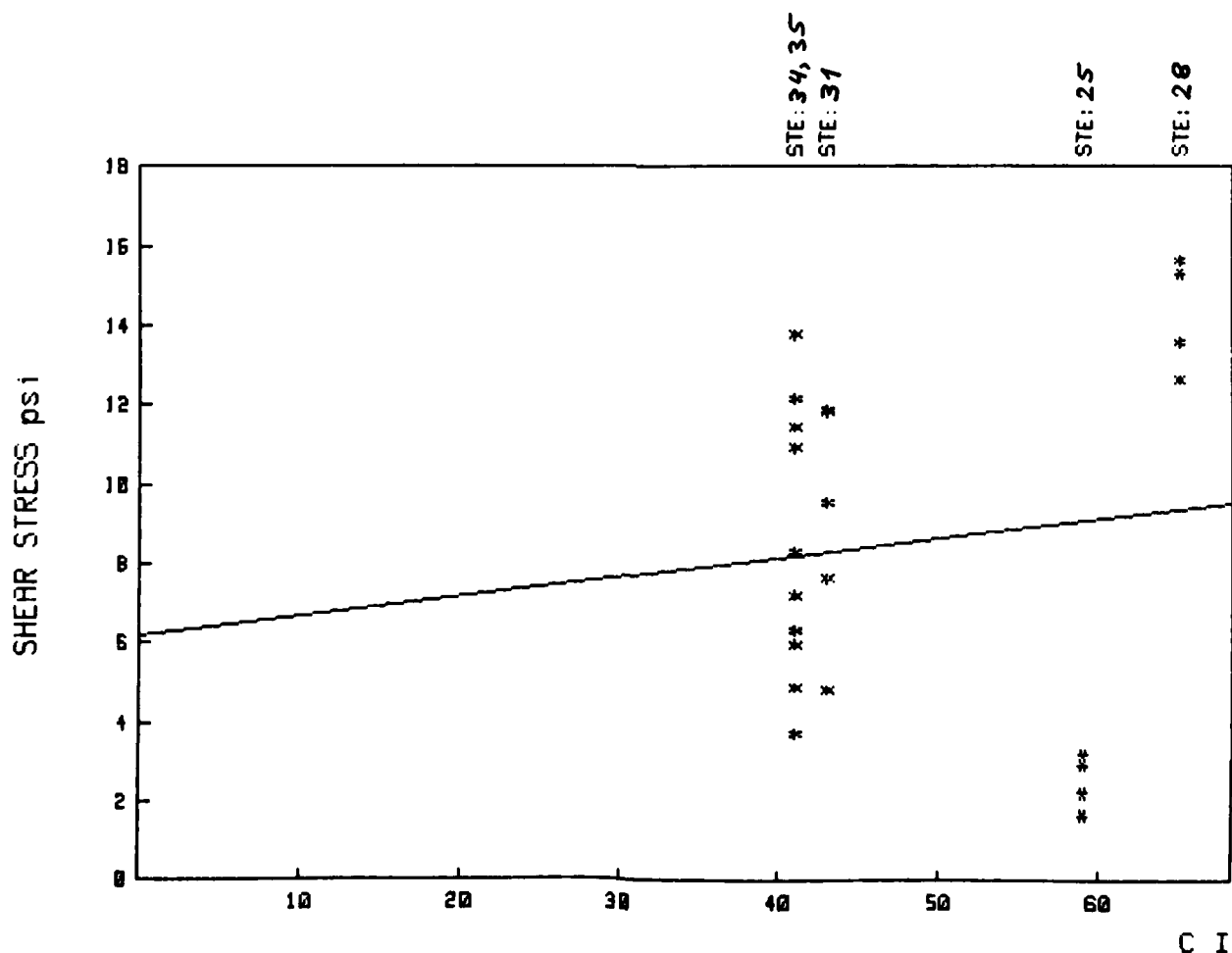


Fig. 71

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Organic Ingredients = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

25 28 31 34 35

CORRELATION CONSTANTS :

SAMPLE DEPTH: 4 inch, NORMAL STRESS: 11.25 psi, ORGAN. INGREDIENTS: 10-20%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = -.02$$

$$b = 1.9382E-01$$

CORRELATION COEFFICIENT

$$R = .3672$$

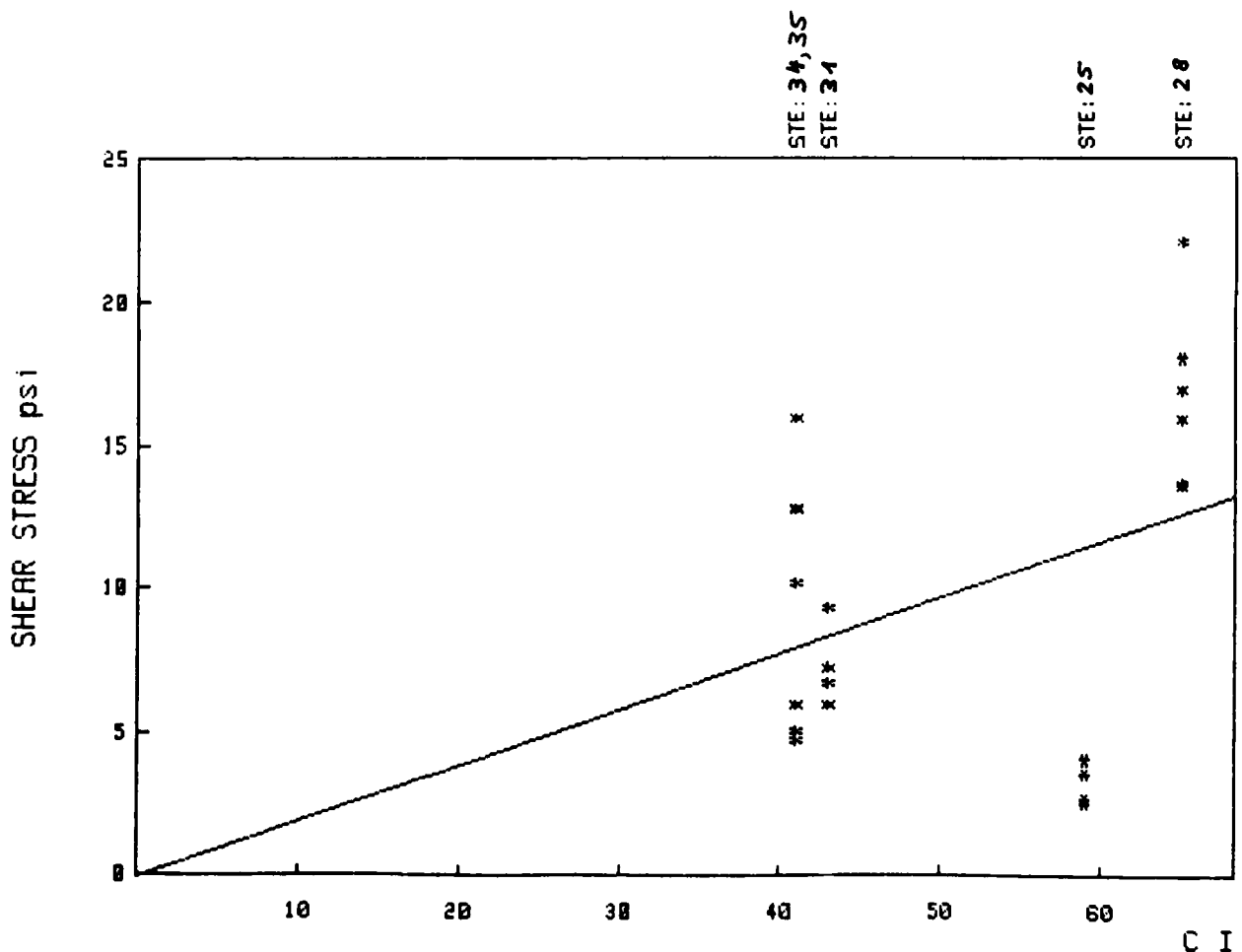


Fig.72

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Organic Ingredients = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

6 8 19 21 27

CORRELATION CONSTANTS :

SAMPLE DEPTH: 4 inch, NORMAL STRESS: .5 psi, ORGAN. INGREDIENTS: > 20%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 1.32$$

$$b = 3.1725E-02$$

CORRELATION COEFFICIENT

$$R = .6845$$

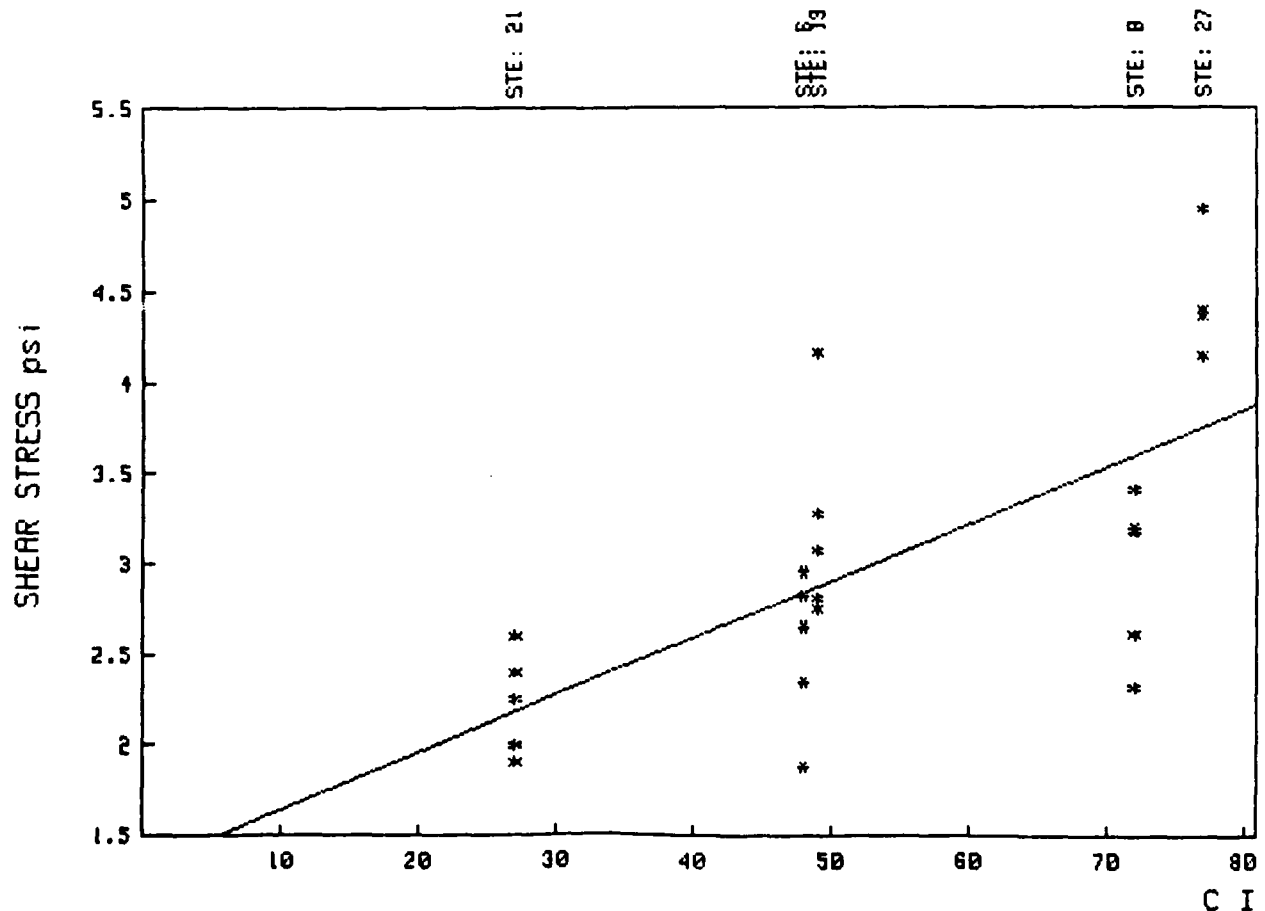


Fig.73

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Organic Ingredients = const.

BALFOUR INSTITUTE FOR TRANSPORTATION

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

6 8 19 21 27

CORRELATION CONSTANTS :

SAMPLE DEPTH: 4 inch, NORMAL STRESS: 5.6 psi, ORGAN. INGREDIENTS: > 20%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 3.70$$

$$b = 6.0682E-02$$

CORRELATION COEFFICIENT

$$R = .5533$$

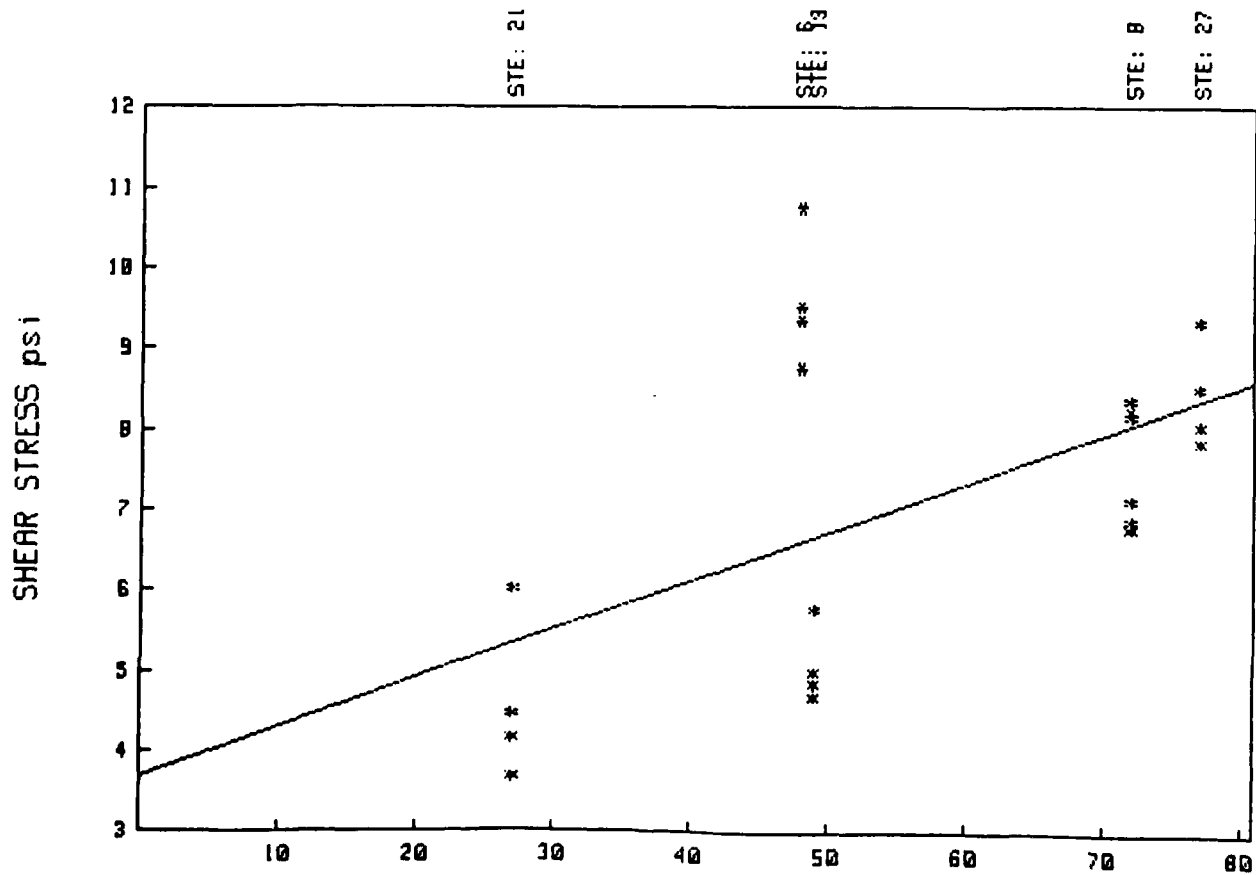


Fig.74

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Organic Ingredients = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

6 8 19 21 27

CORRELATION CONSTANTS :

SAMPLE DEPTH: 4 inch, NORMAL STRESS: 11.25 psi, ORGAN. INGREDIENTS: >20%

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 6.23$$

$$b = 5.9602E-02$$

CORRELATION COEFFICIENT

$$R = .4326$$

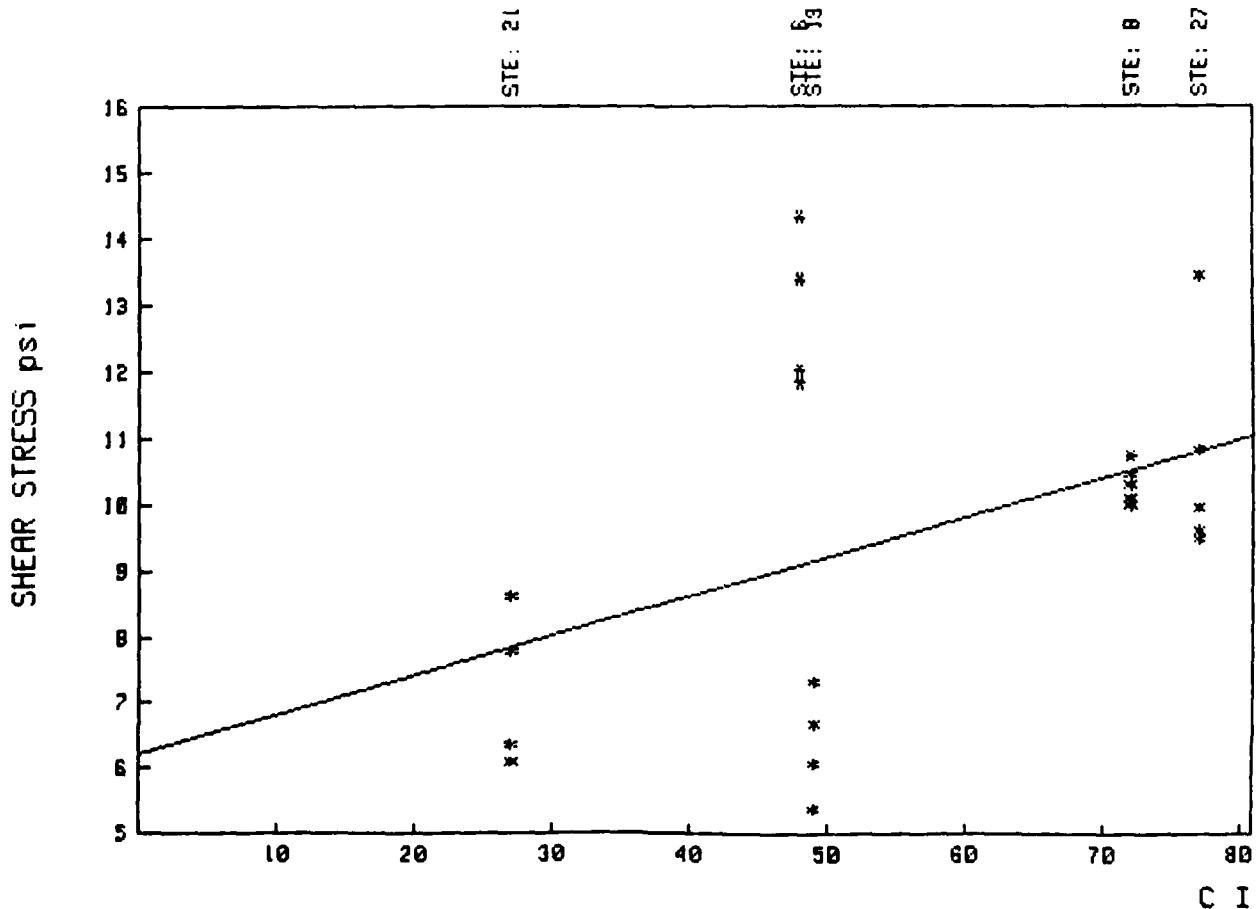


Fig.75

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Organic Ingredients = const.

DATA COLLECTED FROM FIELD TESTS AT MAI 1985

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

2 9 11 14 18

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, PLASTICITY : 0 - 20 %

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 2.94$$

$$b = 4.3902E-02$$

CORRELATION COEFFICIENT

$$R = .5085$$

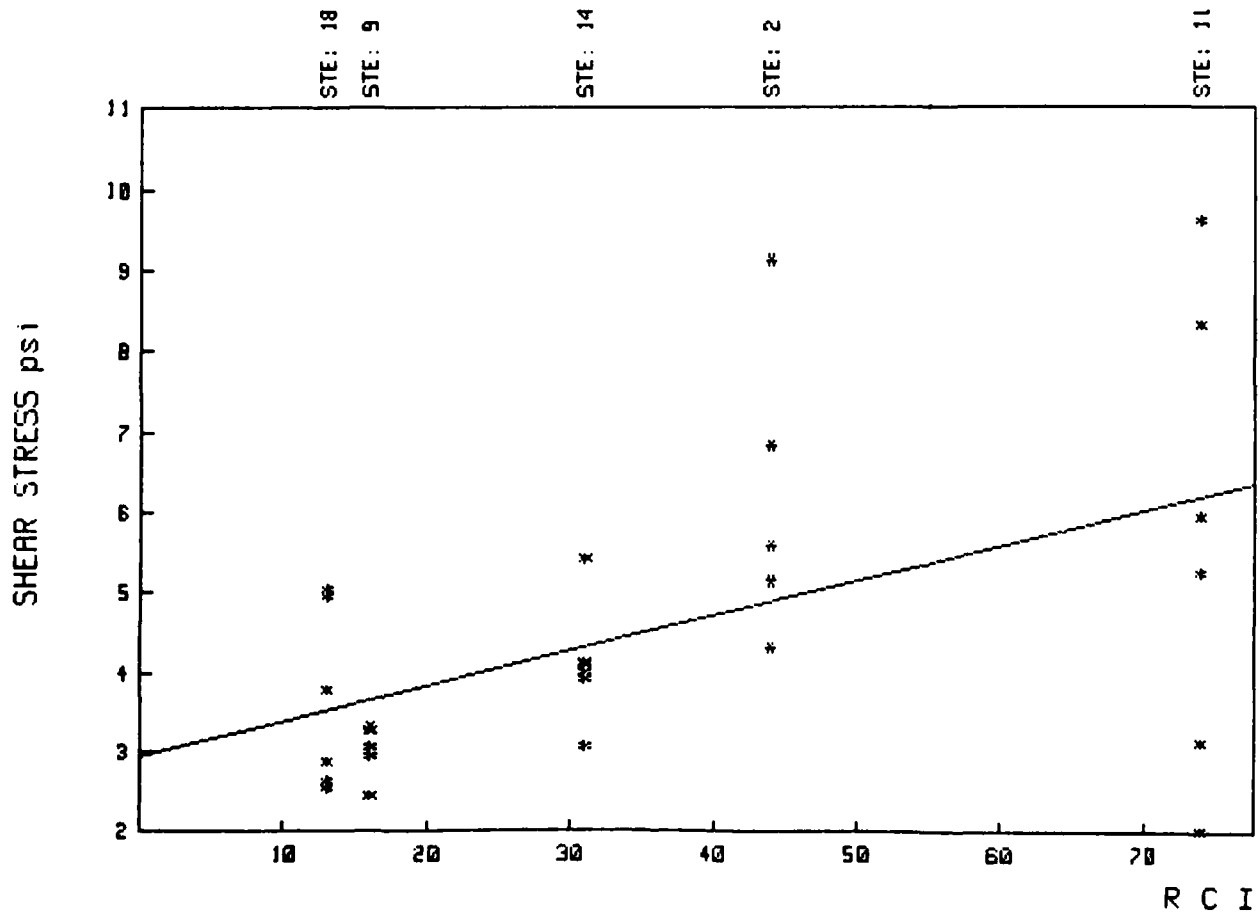


Fig.76

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Plasticity = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

2 9 11 14 18

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, PLASTICITY : 0 - 20 %

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 5.62$$

$$b = 1.1305E-01$$

CORRELATION COEFFICIENT

$$R = .8188$$

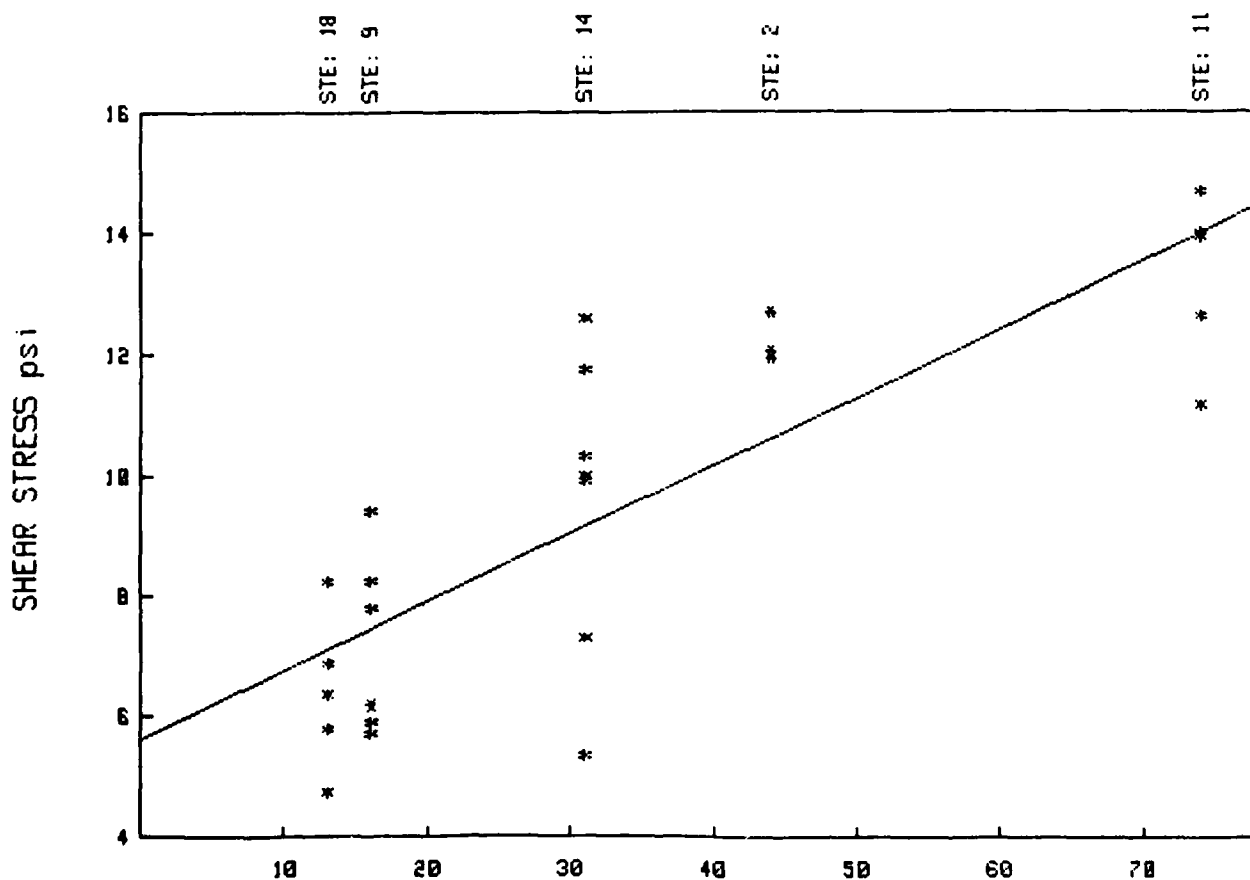


Fig.77

Correlation of Cone Index/Rating Cone Index and Shear R C I
Box Data for Plasticity = const.

AD-A171 697

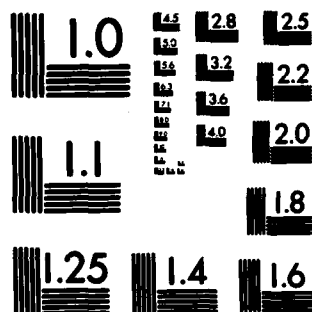
GENERALLY BASED MOBILITY-TERRAIN DATA BASES(U)
BATTLE-INSTITUT E U FRANKFURT AM MAIN (GERMANY F R)
P JESSL ET AL. MAR 86 BLEU-R-66.069-1 DAJA45-84-C-0839

2/3

UNCLASSIFIED

F/G 8/6

NL



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

2 9 11 14 18

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, PLASTICITY : 0 - 20 %

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 7.74$$

$$b = 1.2686E-01$$

CORRELATION COEFFICIENT

$$R = .7363$$

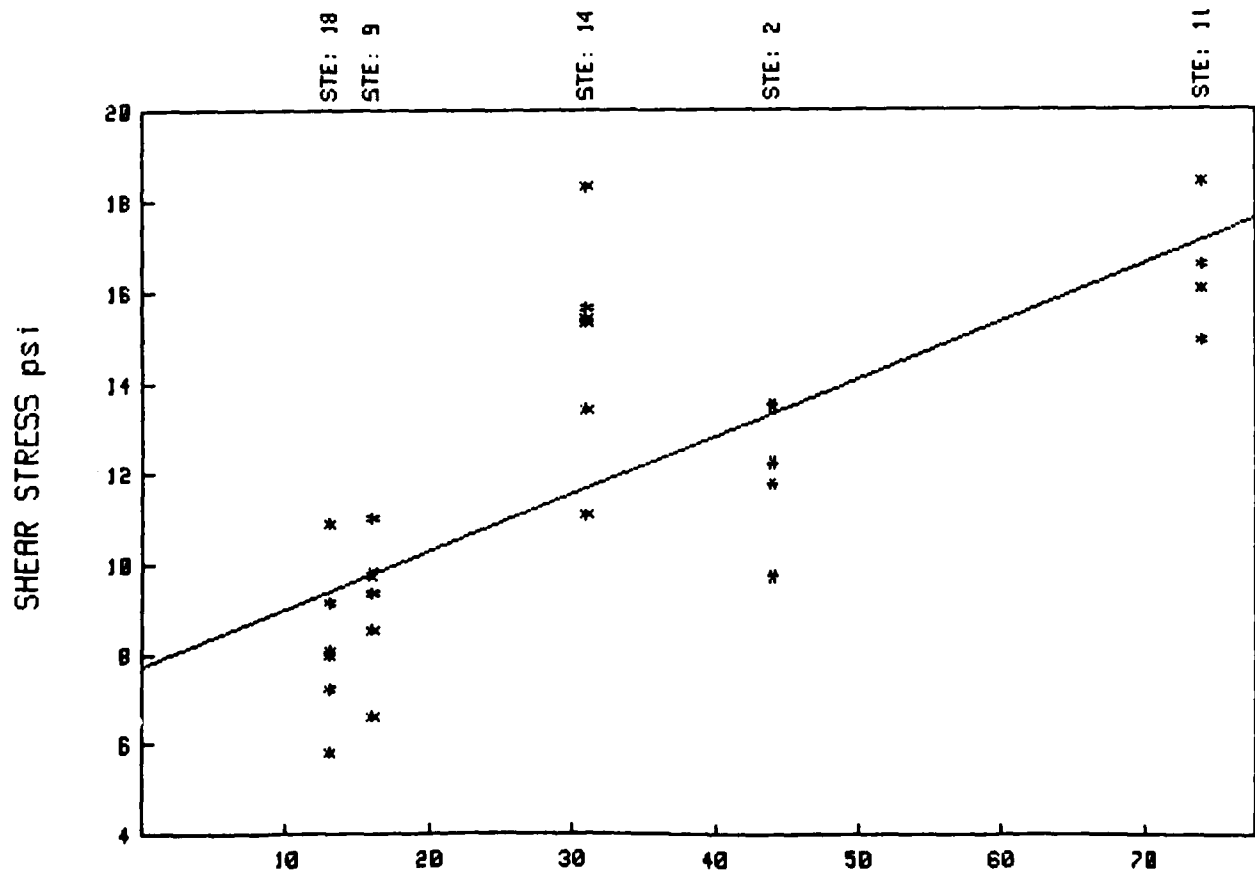


Fig.78

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Plasticity = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 10 12 31

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, PLASTICITY : 20 - 50 %

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = .48$$

$$b = 9.5005E-02$$

CORRELATION COEFFICIENT

$$R = .5154$$

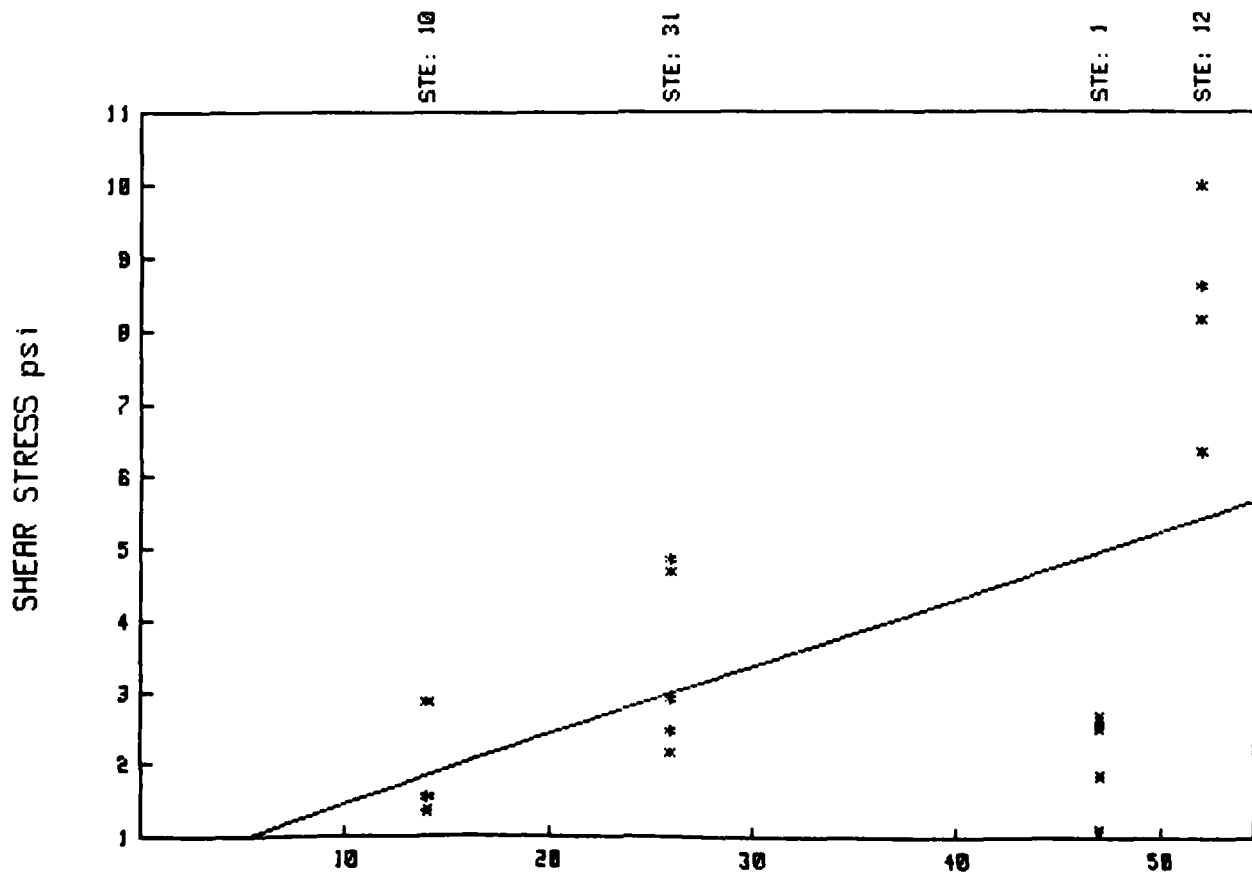


Fig.79

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Plasticity = const.

MAI 1985 - INVESTIGATION OF CRITICAL SOIL PARAMETERS

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 10 12 31

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, PLASTICITY : 20 - 50 %

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = .89$$

$$b = 2.4358E-01$$

CORRELATION COEFFICIENT

$$R = .8372$$

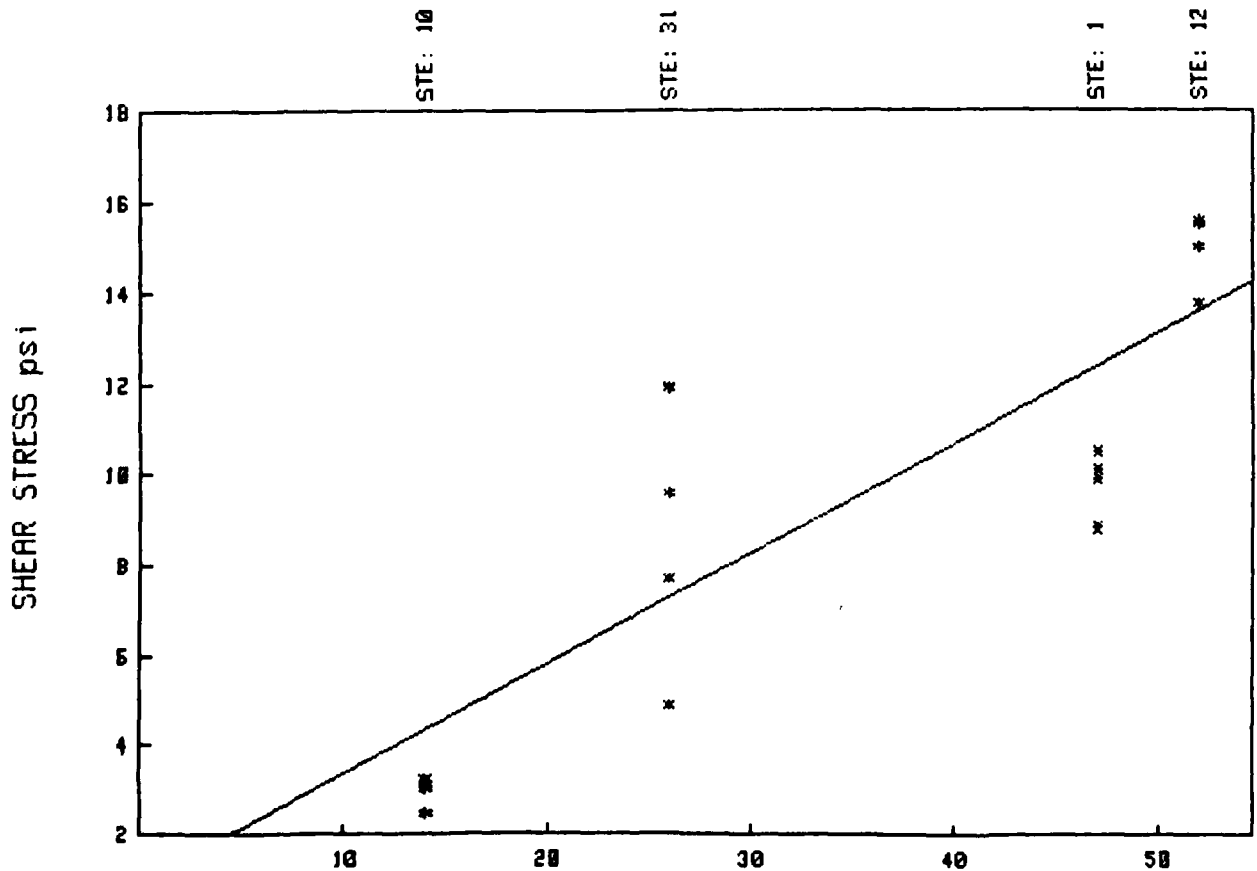


Fig.80

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Plasticity = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 10 12 31

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, PLASTICITY : 20 - 50 %

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = -.73$$

$$b = 3.1357E-01$$

CORRELATION COEFFICIENT

$$R = .9724$$

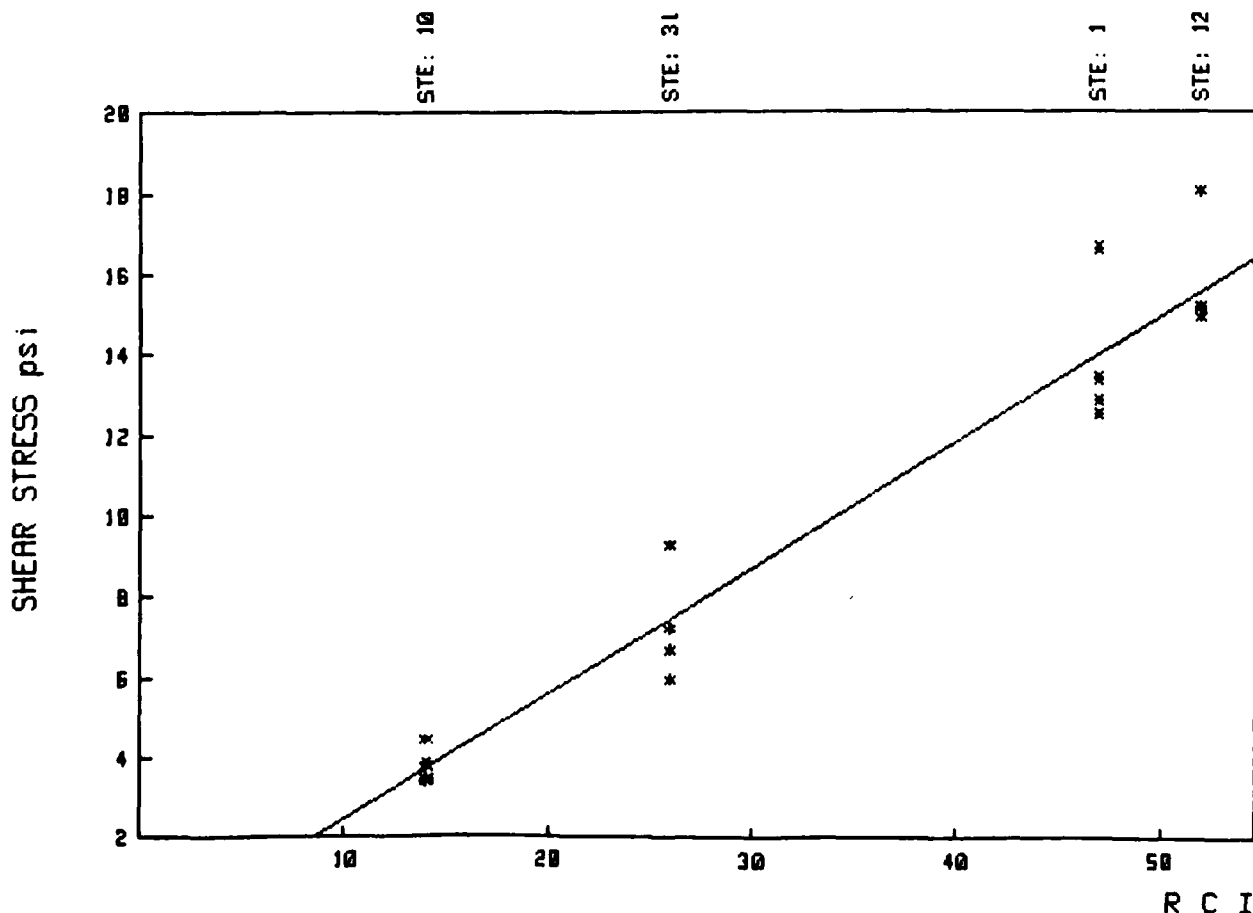


Fig.81

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Plasticity = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

25 27 28 34

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, PLASTICITY : > 50 %

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = -16.00$$

$$b = 6.7023E-01$$

CORRELATION COEFFICIENT

$$R = .7179$$

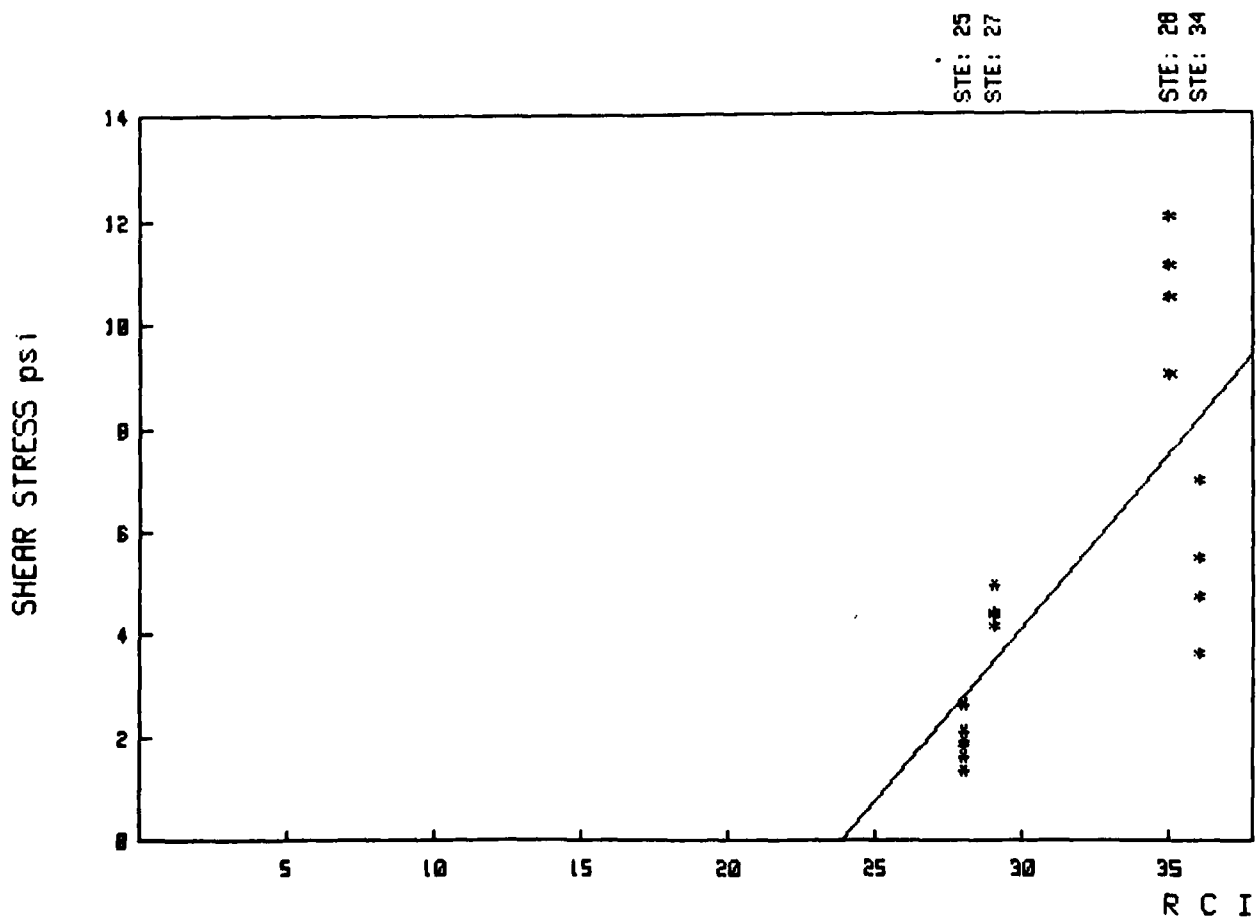


Fig.82

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Plasticity = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

25 27 28 34

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, PLASTICITY : > 50 %

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = -26.42$$

$$b = 1.1176E+00$$

CORRELATION COEFFICIENT

$$R = .8684$$

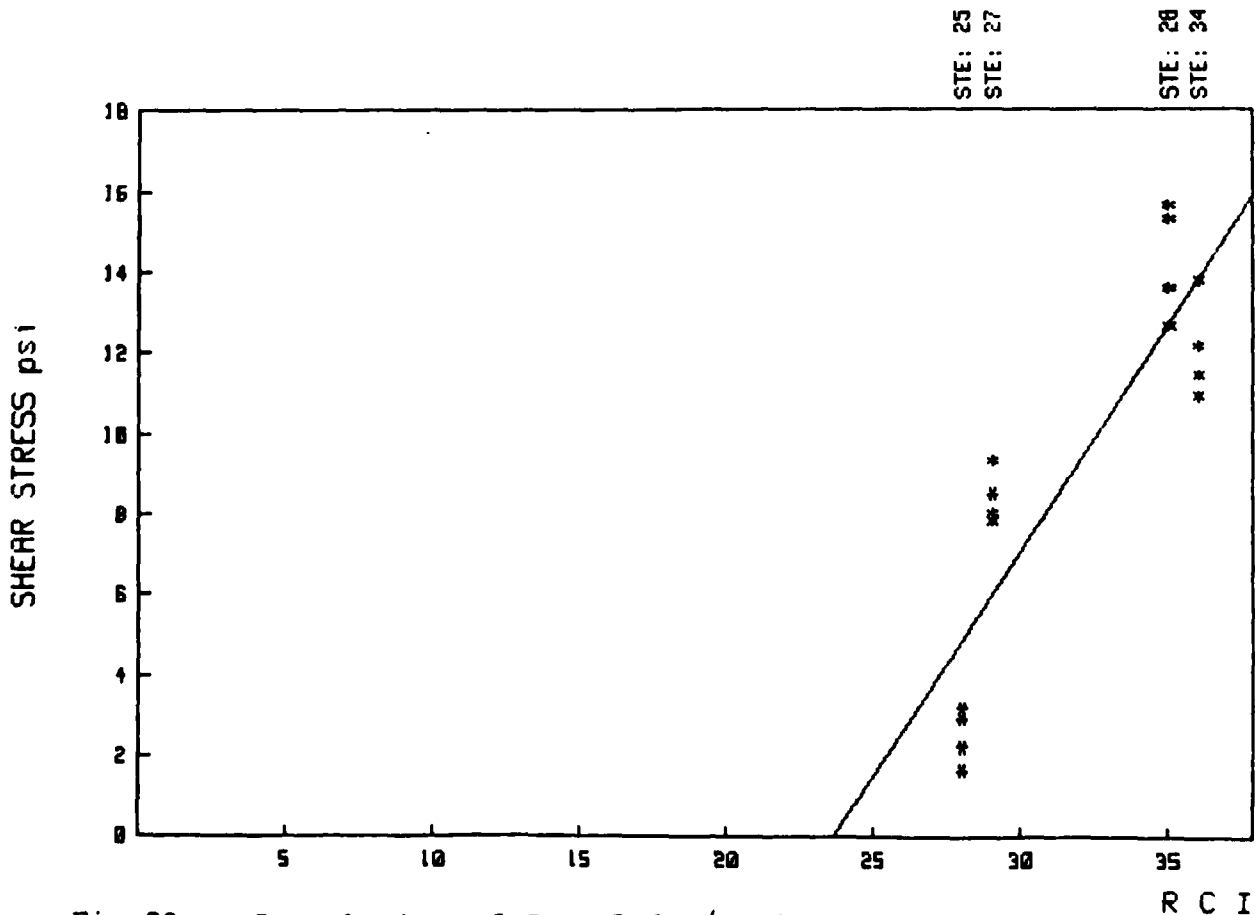


Fig.83

Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Plasticity = const.

BALTIMORE INSTITUTE FOR FRANKFURT AM MAIN

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

25 27 28 34

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, PLASTICITY : > 50 %

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = -28.86$$

$$b = 1.2655E+00$$

CORRELATION COEFFICIENT

$$R = .7999$$

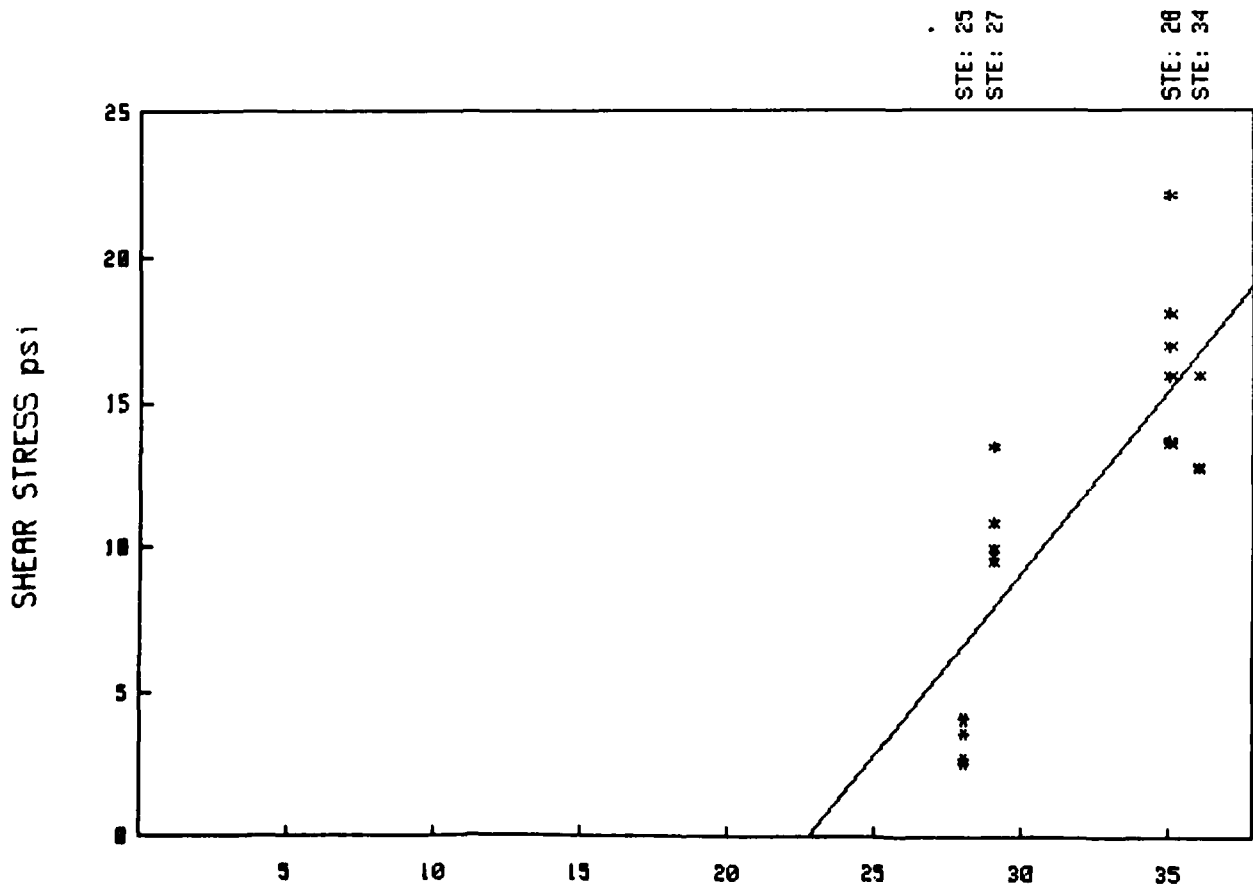


Fig.84

Correlation of Cone Index/Rating Cone Index and Shear^{R C I}
Box Data for Plasticity = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

2 9 11 14 18

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, PLASTICITY : 0 - 20 %

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 1.80$$

$$b = 4.8728E-02$$

CORRELATION COEFFICIENT

$$R = .4823$$

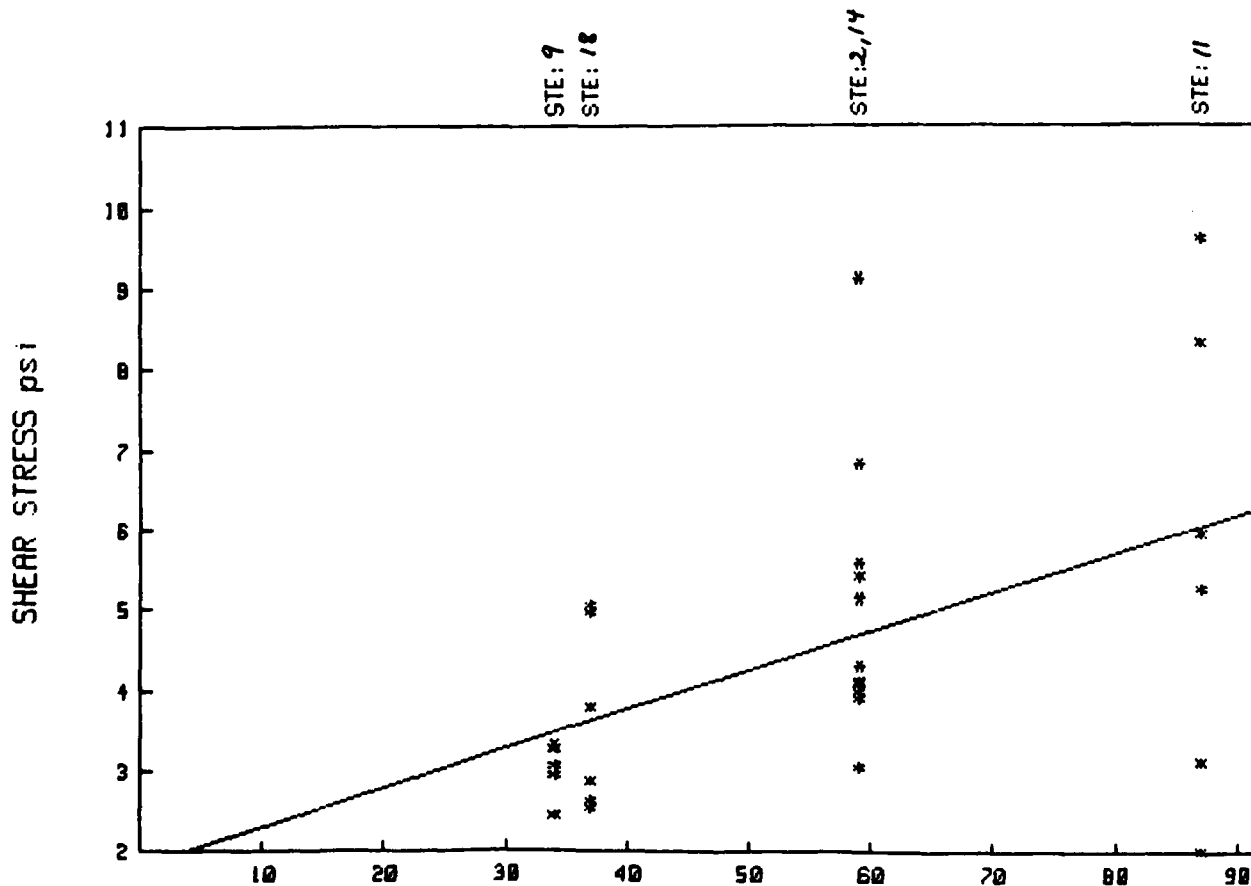


Fig.85

Correlation of Cone Index/Rating Cone Index and Shear C I
Box Data for Plasticity = const.

BATTELLE INSTITUTE FOR FRANKLIN COUNTY

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

2 9 11 14 18

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, PLASTICITY : 0 - 20 %

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 2.53$$

$$b = 1.2707E-01$$

CORRELATION COEFFICIENT

$$R = .8035$$

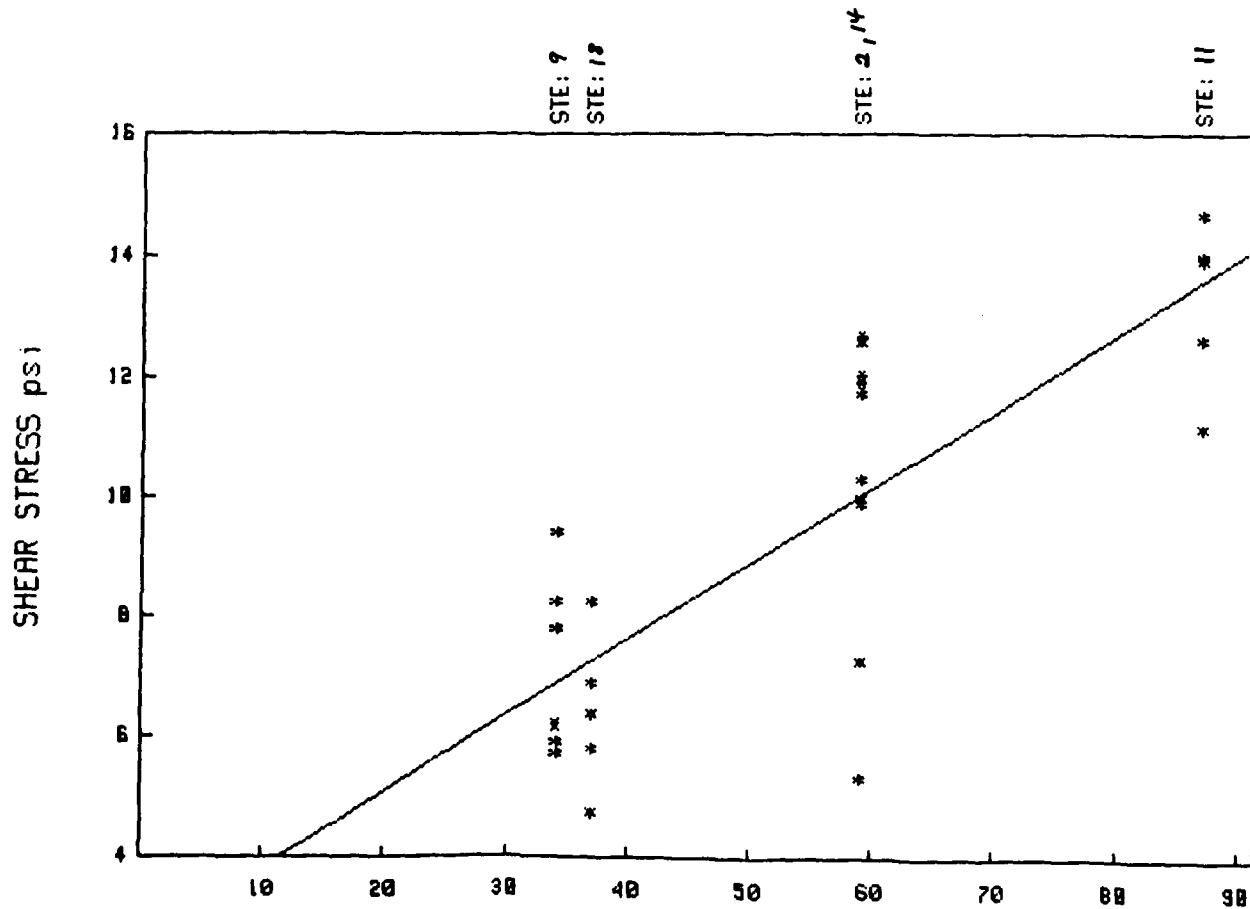


Fig.86

Correlation of Cone Index/Rating Cone Index and Shear C I
Box Data for Plasticity = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

2 9 11 14 18

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, PLASTICITY : 0 - 20 %

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 3.20$$

$$b = 1.6357E-01$$

CORRELATION COEFFICIENT

$$R = .8202$$

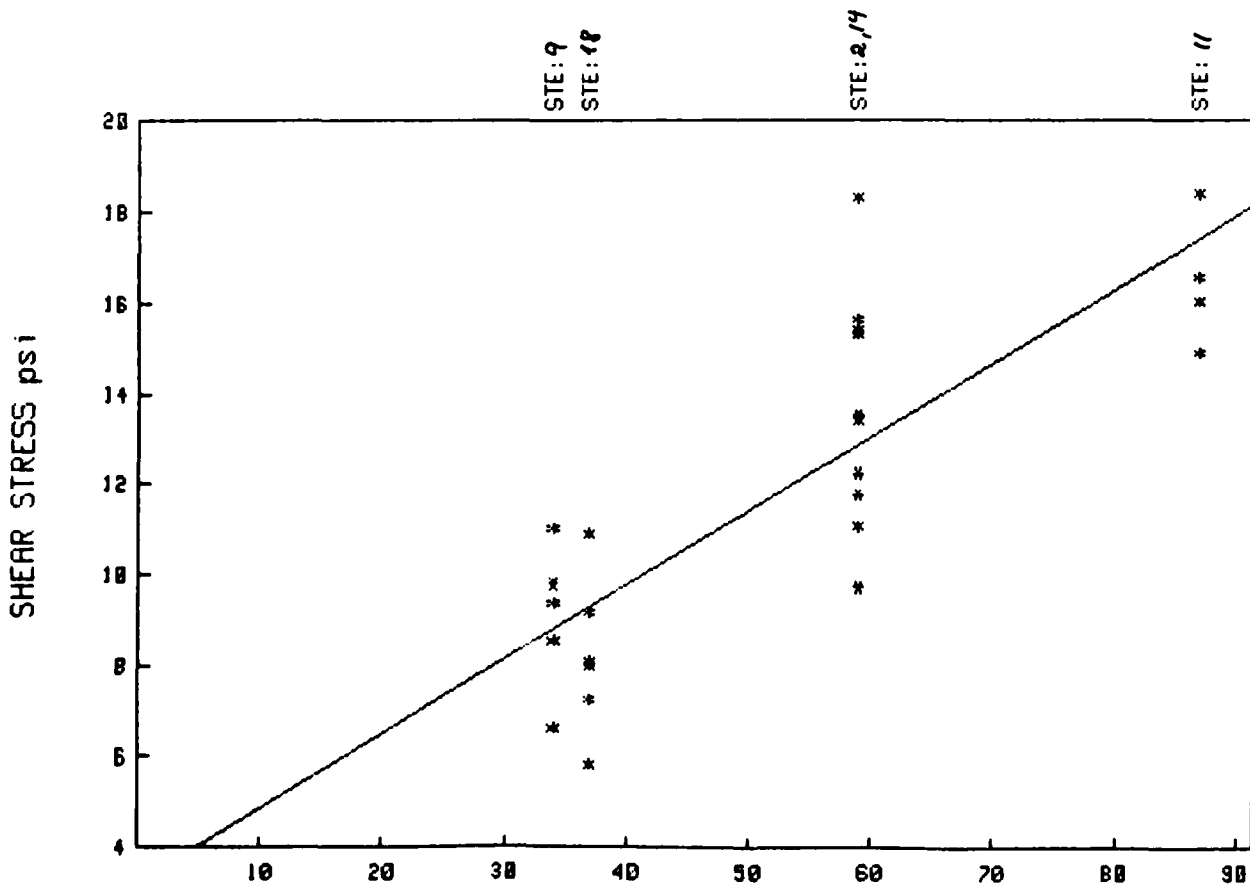


Fig.87

Correlation of Cone Index/Rating Cone Index and Shear C I
Box Data for Plasticity = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 10 12 31

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, PLASTICITY : 20 - 50 %

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = -1.94$$

$$b = 1.0551E-01$$

CORRELATION COEFFICIENT

$$R = .7721$$

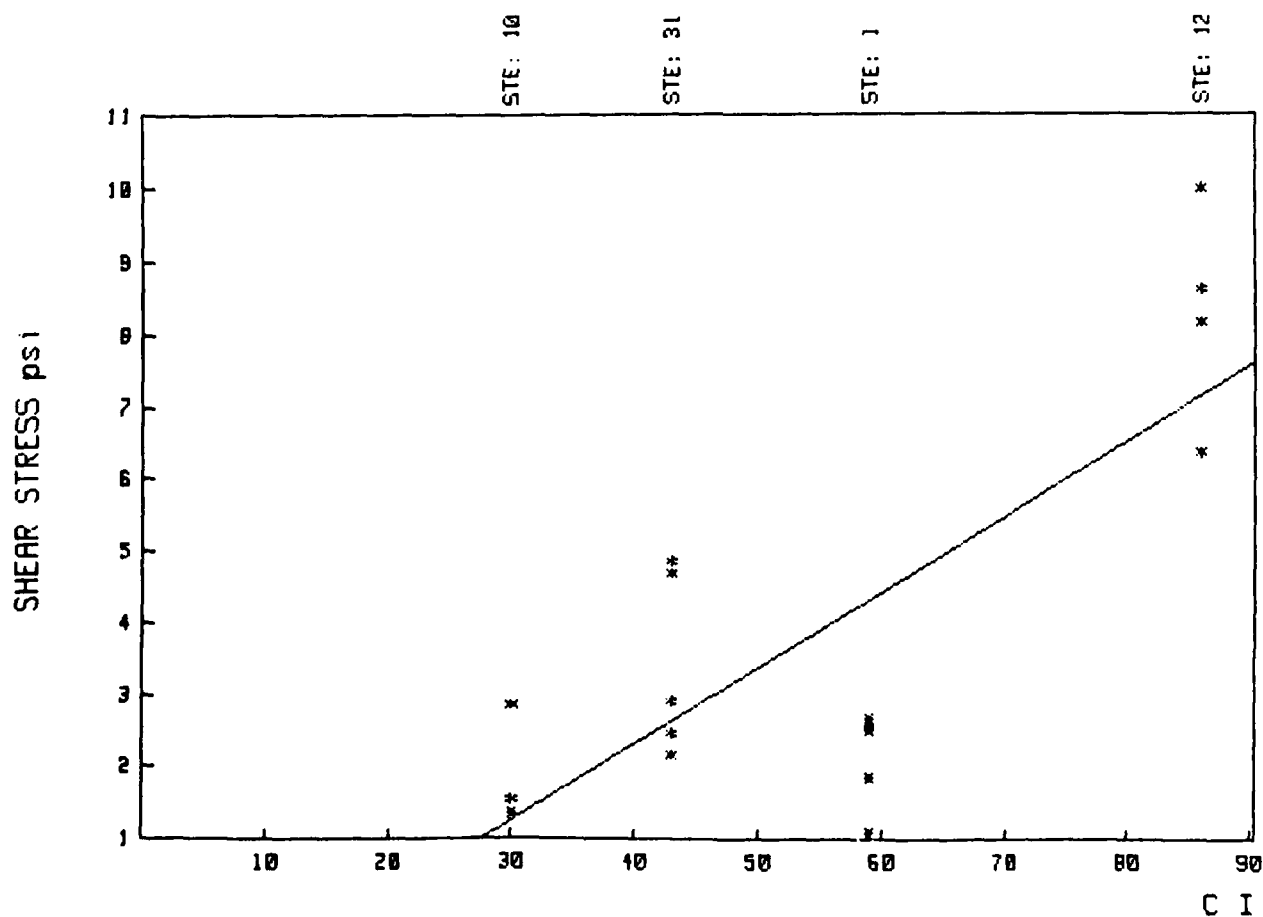


Fig.88

Correlation of Cone Index/Rating Cone Index and Shear Box Data for Plasticity = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 10 12 31

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, PLASTICITY : 20 - 50 %

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = -.99$$

$$b = 1.9000E-01$$

CORRELATION COEFFICIENT

$$R = .8824$$

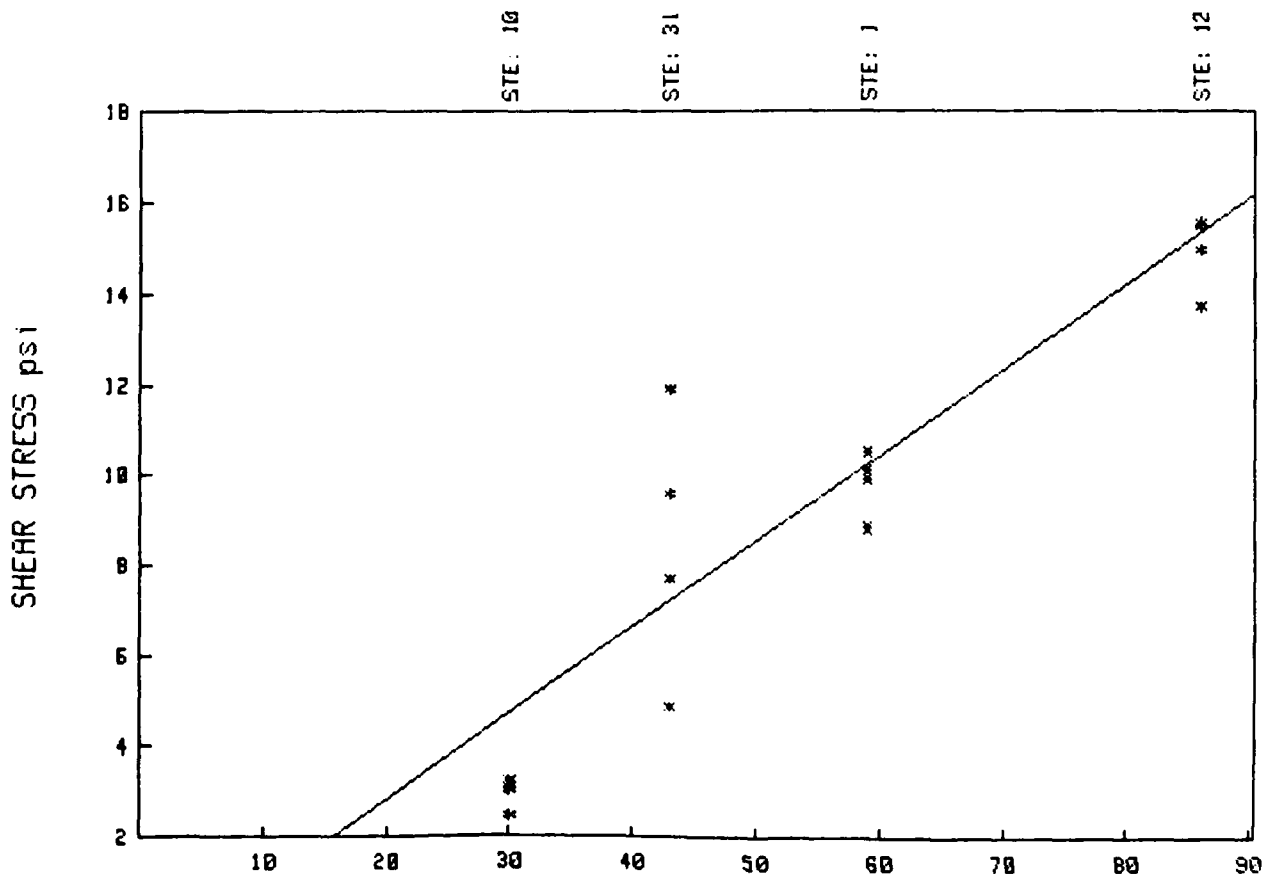


Fig.89

Correlation of Cone Index/Rating Cone Index and Shear C I
Box Data for Plasticity = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

1 10 12 31

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, PLASTICITY : 20 - 50 %

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = -2.05$$

$$b = 2.2597E-01$$

CORRELATION COEFFICIENT

$$R = .9201$$

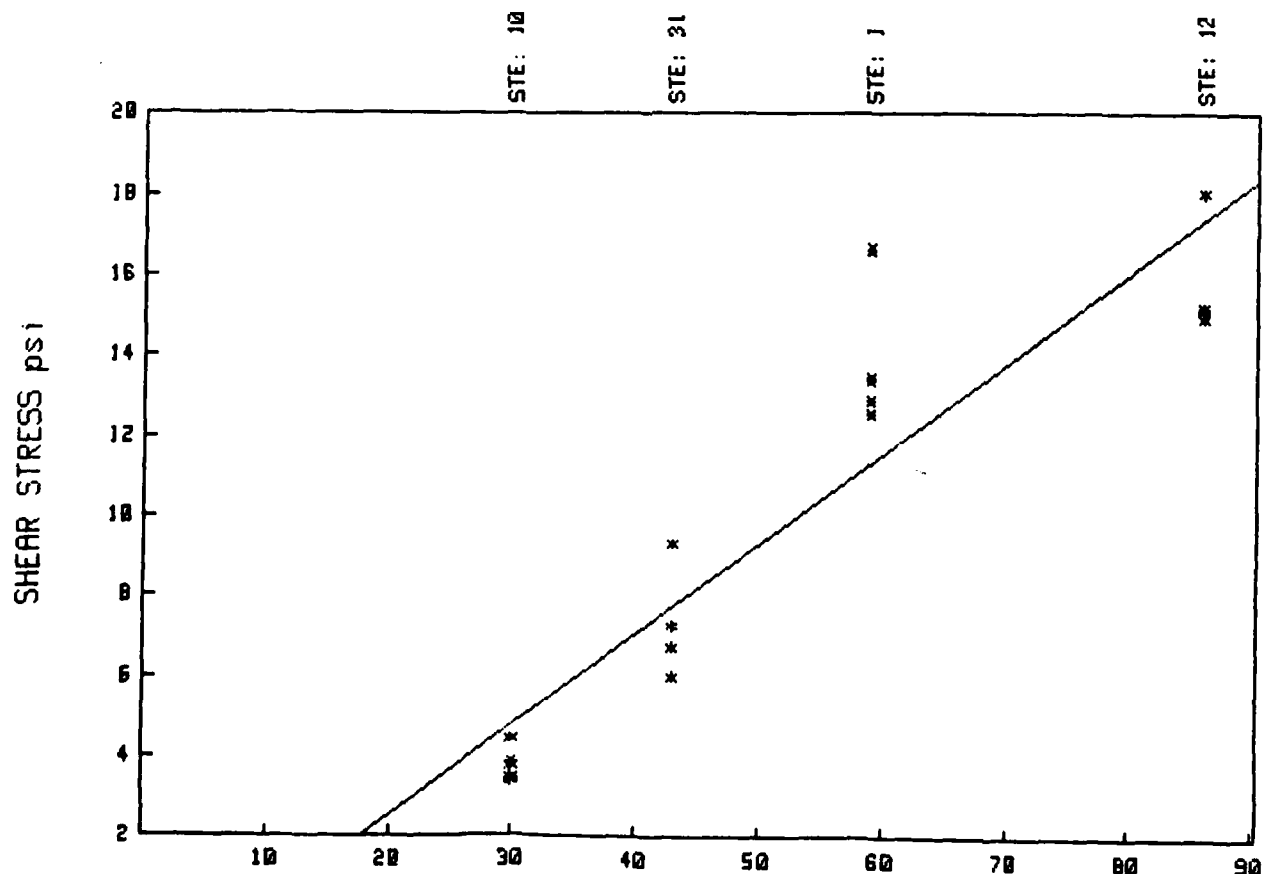


Fig.90

Correlation of Cone Index/Rating Cone Index and Shear C I
Box Data for Plasticity = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

25 27 28 34

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : .5 psi, PLASTICITY : > 50 %

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 3.36$$

$$b = 2.9663E-02$$

CORRELATION COEFFICIENT

$$R = .1093$$

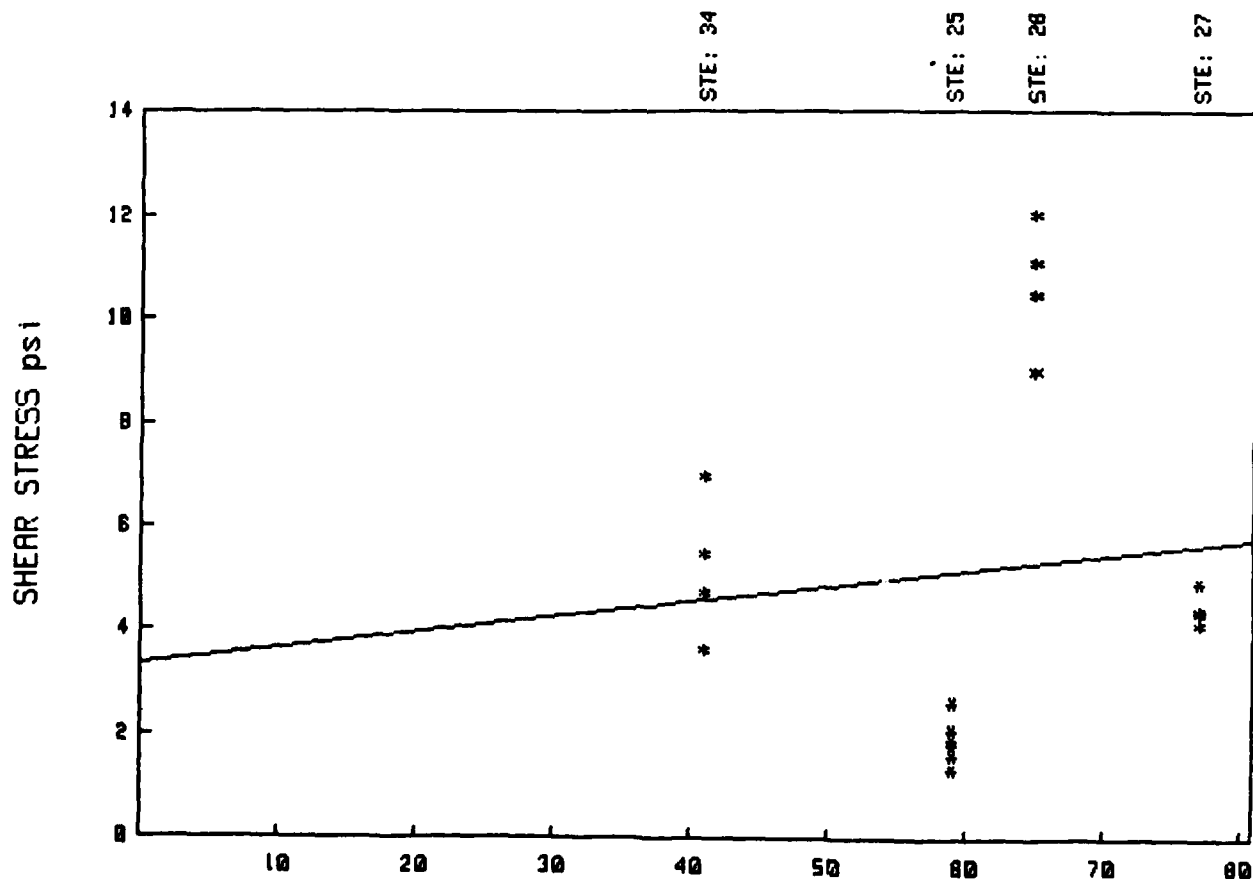


Fig.91

Correlation of Cone Index/Rating Cone Index and Shear C I
Box Data for Plasticity = const.

UNIVERSITY OF TEXAS AT AUSTIN

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

25 27 28 34

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 5.6 psi, PLASTICITY : > 50 %

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 12.58$$

$$b = -5.3480E-02$$

CORRELATION COEFFICIENT

$$R = -.1527$$

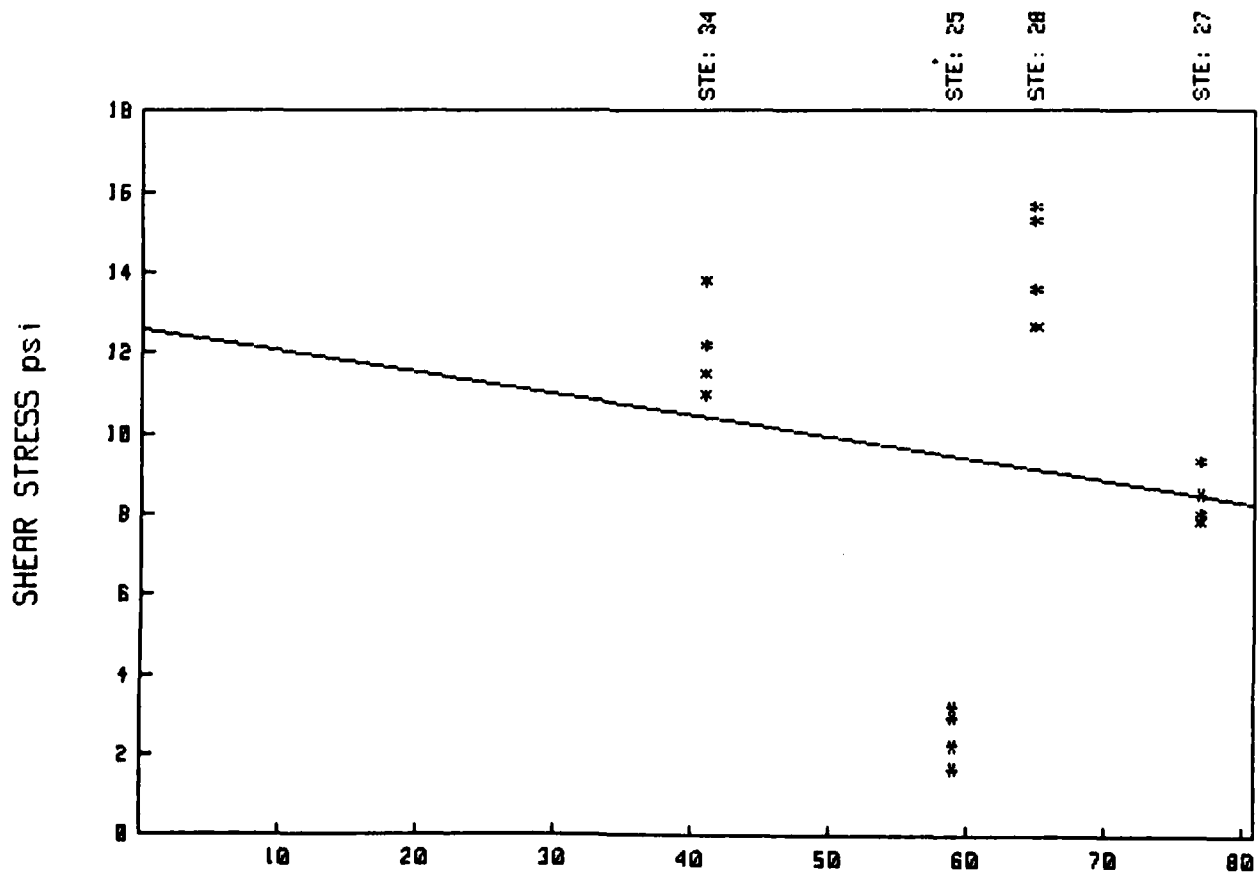


Fig.92

Correlation of Cone Index/Rating Cone Index and Shear C I
Box Data for Plasticity = const.

INVESTIGATION OF CRITICAL SOIL PARAMETERS - MAI 1985 -

CORRELATION OF SOIL-DATA

SITE NO.:

25 27 28 34

CORRELATION CONSTANTS :

SAMPLE DEPTH : 4 inch, NORMAL STRESS : 11.25 psi, PLASTICITY : > 50 %

LINEAR REGRESSION:

$$Y = a + b * X$$

$$a = 11.93$$

$$b = -5.9113E-03$$

CORRELATION COEFFICIENT

$$R = -.0129$$

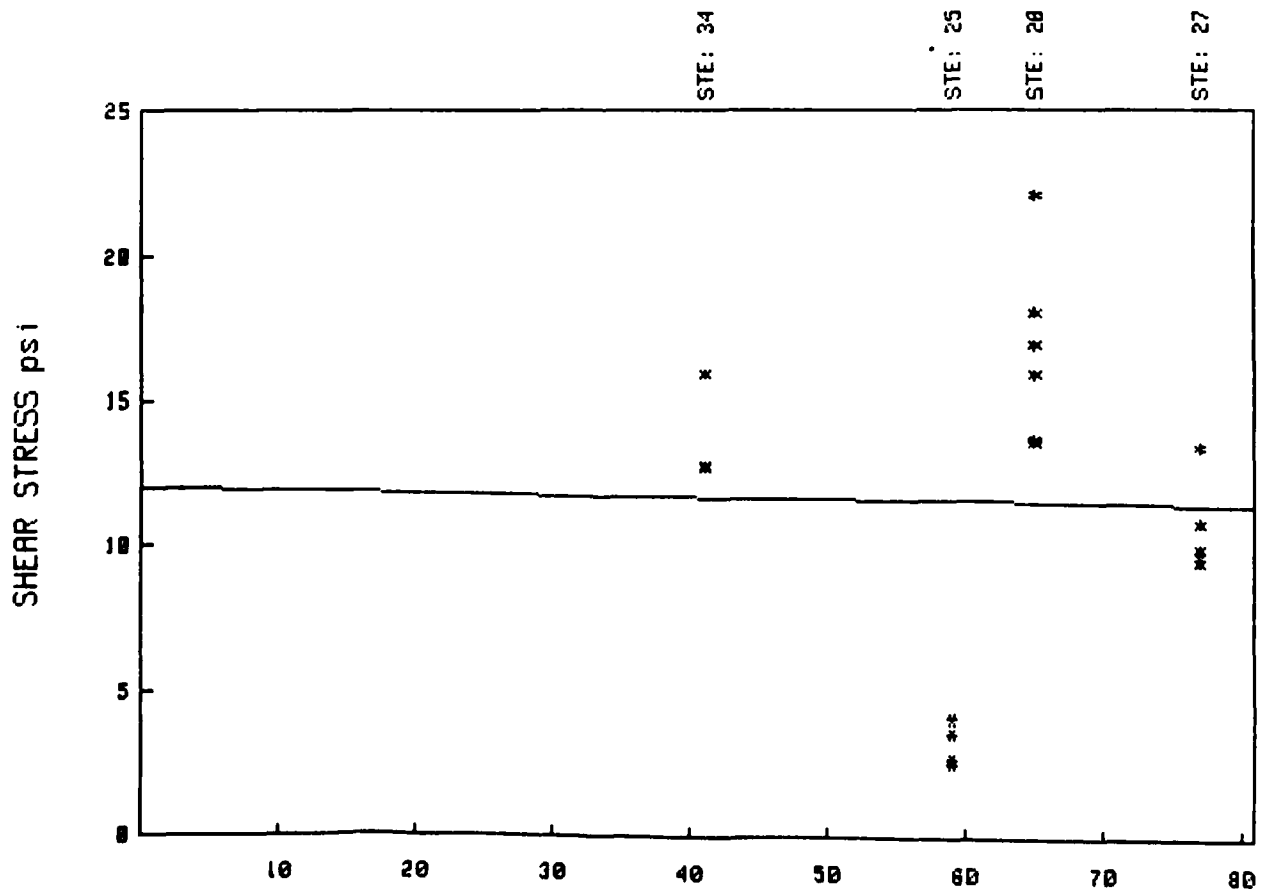
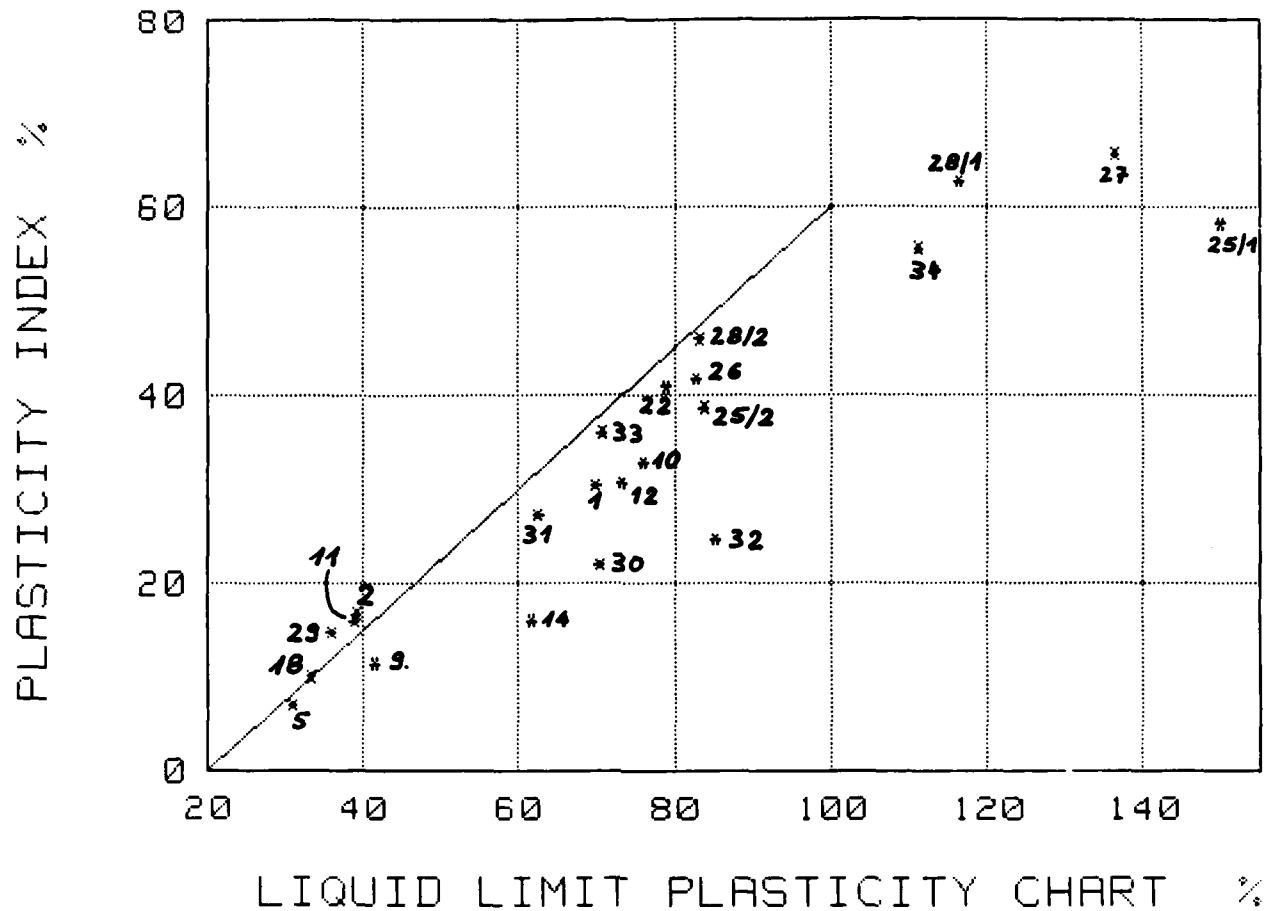


Fig. 93

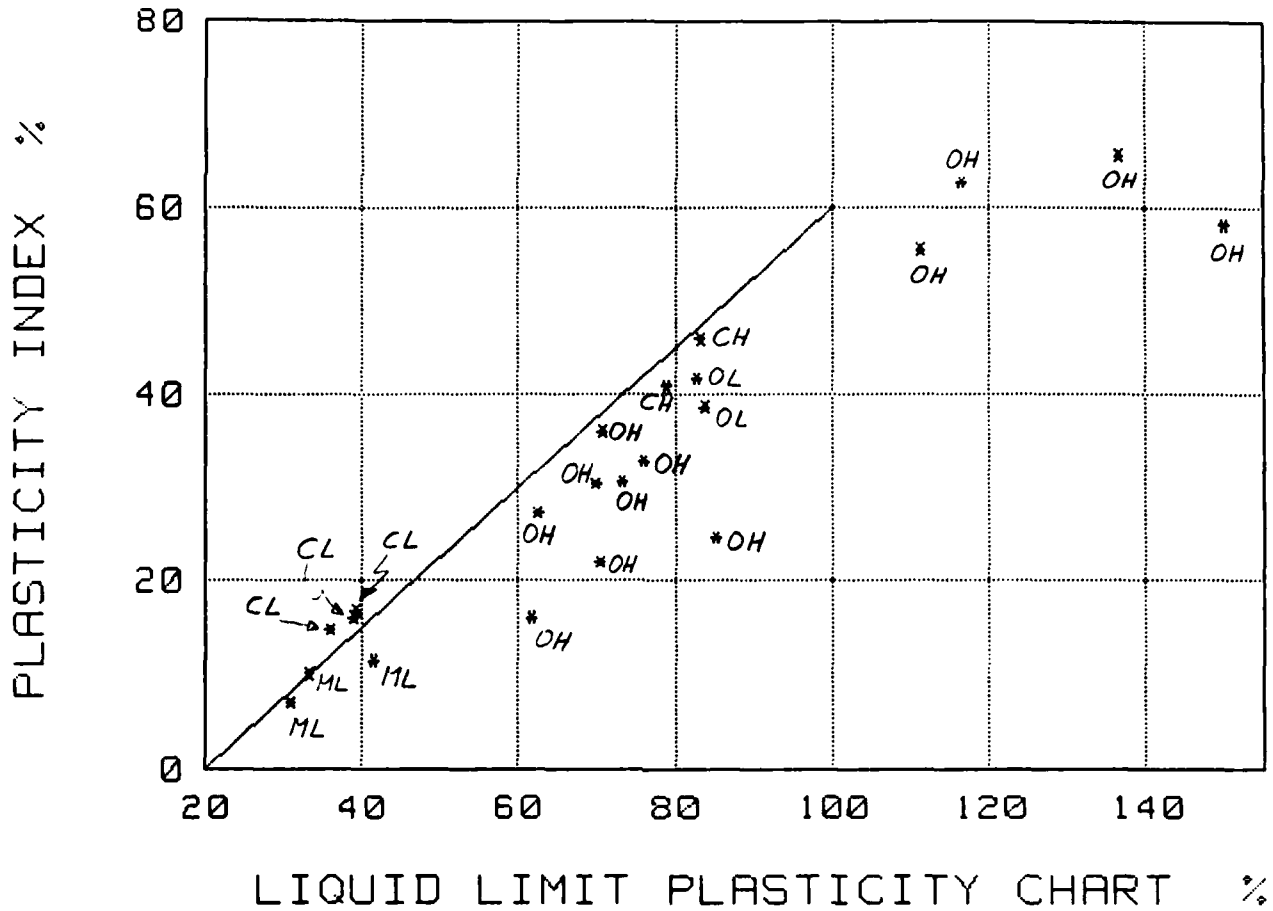
Correlation of Cone Index/Rating Cone Index and Shear
Box Data for Plasticity = const.



SITE NO.	LIQUID LIM. PLAS. CH. %	PLASTICITY I. %
1	69.9	30.4
2	39.2	16.7
5	30.9	7.0
9	41.4	11.4
10	75.9	32.8
11	38.9	16.0
12	73.3	30.6
14	61.7	16.0
18	33.3	10.0
22	78.9	40.9
25/1	150.0	58.3
25/2	83.8	38.7
26	82.8	41.7
27	136.5	65.7
28/1	116.4	62.7
28/2	83.2	46.0
29	35.9	14.7
30	70.4	21.9
31	62.5	27.2
32	85.2	24.6
33	70.7	36.0
34	111.2	55.6

Fig. 94

Summary of Sites Investigated for Prediction vs. Measurement of Cone Index with Respect to Soils Plasticity (Site Numbers)



SITE NO.	LIQUID LIM. PLAS. CH. %	PLASTICITY I. %
1	69.9	30.4
2	39.2	16.7
5	30.9	7.0
9	41.4	11.4
10	75.9	32.8
11	38.9	16.0
12	73.3	30.6
14	61.7	16.0
18	33.3	10.0
22	78.9	40.9
251	150.0	58.3
252	83.8	38.7
26	82.8	41.7
27	136.5	65.7
281	116.4	62.7
282	83.2	46.0
29	35.9	14.7
30	70.4	21.9
31	62.5	27.2
32	85.2	24.6
33	70.7	36.0
34	111.2	55.6

Fig. 95

Summary of Sites Investigated for Prediction vs. Measurement of Cone Index with Respect to Soils Plasticity (Soil Types)

SITE NO.	QUAD NO.	GRID COORD.
1	L5916	6050/4170

COHESION	FRICTION ANGLE	SHEAR MOD.	DENSITY
PSI	DEGREE	PSI	PCI
.90	18.00	490.00	.0585

Z [in]	CI-meas.[psi]
0.00	24.00
1.00	50.00
2.00	50.00
3.00	56.00
4.00	64.00
5.00	75.00
6.00	96.00

Z = 4 in -> CI-pred. = 66 psi

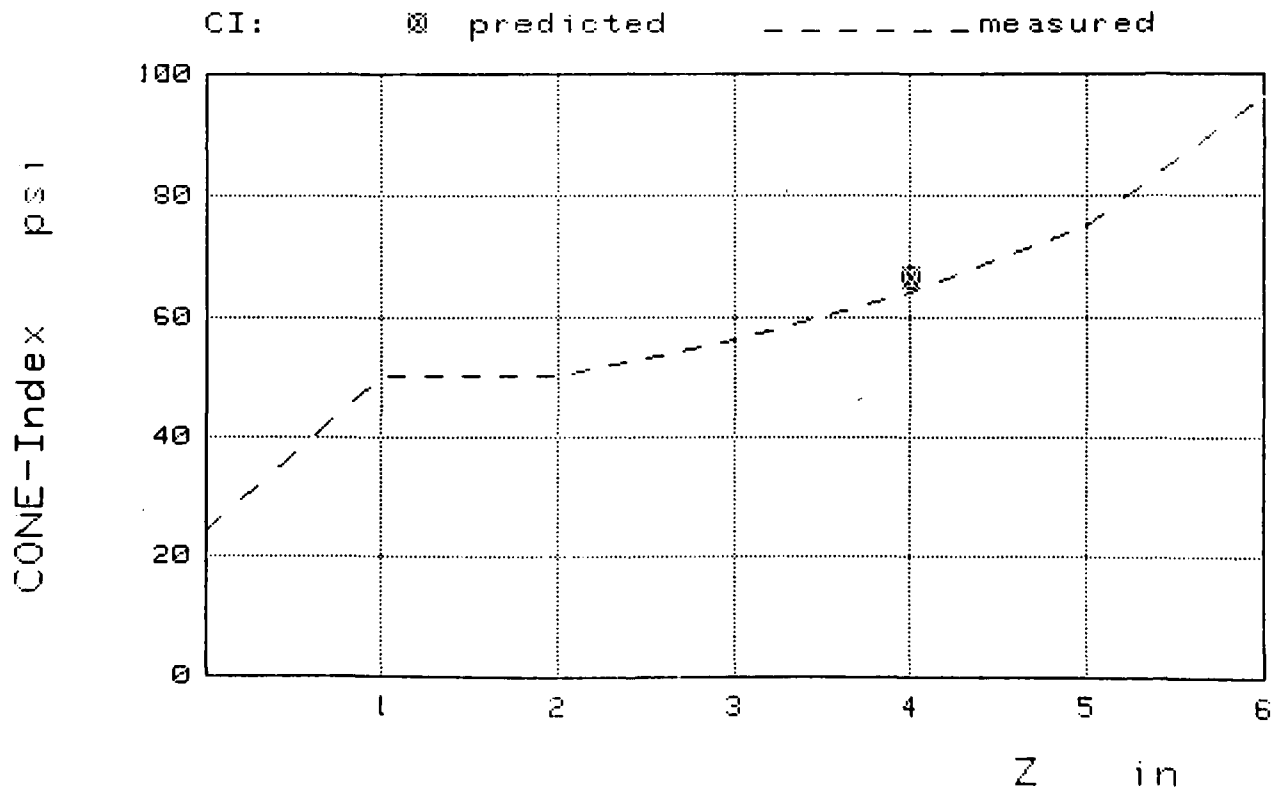


Fig.96

Plots of Predicted and Measured Cone Indices for the Sites Investigated

SITE NO. 2 QUAD NO. L5916 GRID COORD. 6001/4565

COHESION PSI 5.00 FRICTION ANGLE DEGREE 9.00 SHEAR MOD. PSI 440.00 DENSITY PCI .0549

Z [in]	CI-meas.[psi]
0.00	7.00
1.00	47.00
2.00	66.00
3.00	71.00
4.00	72.00
5.00	74.00
6.00	78.00

Z = 4 in -> CI-pred. = 107 psi

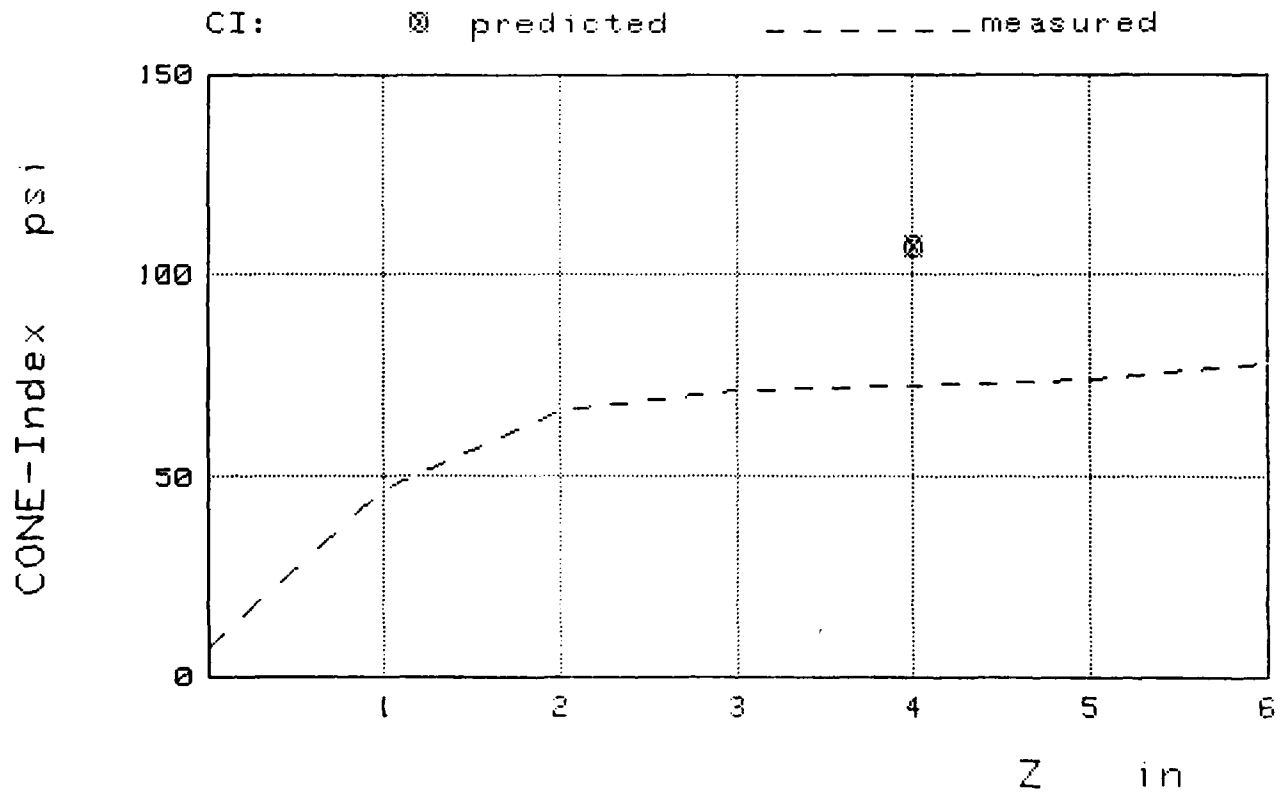


Fig.97

Plots of Predicted and Measured Cone Indices for the Sites Investigated

SITE NO.	QUAD NO.	GRID COORD.
3	L5918	8340/4665

COHESION	FRICTION ANGLE	SHEAR MOD.	DENSITY
PSI	DEGREE	PSI	PCI
3.00	8.00	380.00	.0376

Z [in]	CI-meas. [psi]
0.00	15.00
1.00	30.00
2.00	44.00
3.00	59.00
4.00	66.00
5.00	68.00
6.00	74.00

Z = 4 in -> CI-pred. = 65 psi

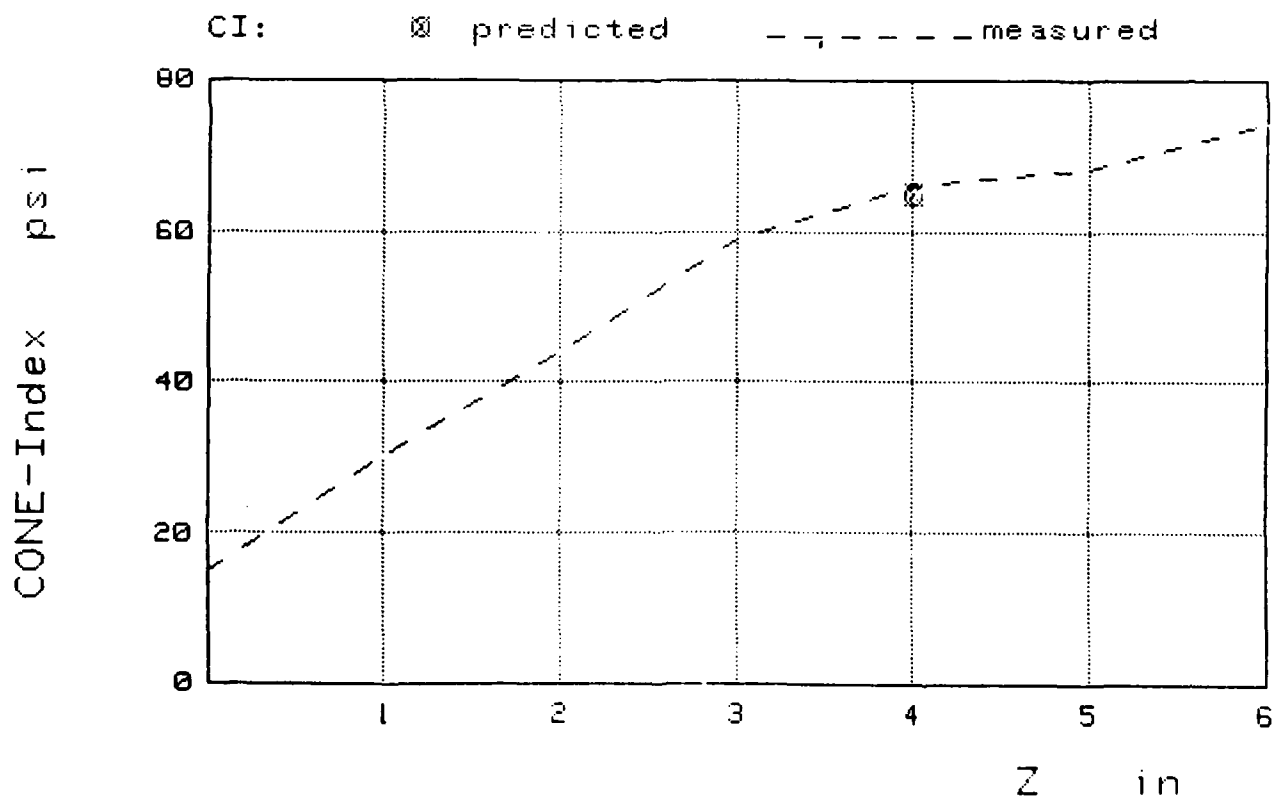


Fig.98

Plots of Predicted and Measured Cone Indices for the Sites Investigated

SITE NO. 7 QUAD NO. L3528 GRID COORD. 0600/2325

COHESION FRICTION ANGLE SHEAR MOD. DENSITY
PSI DEGREE PSI PCI
3.00 12.00 420.00 .0569

Z [in]	CI-meas.[psi]
0.00	20.00
1.00	37.00
2.00	43.00
3.00	47.00
4.00	58.00
5.00	70.00
6.00	82.00

Z = 4 in -> CI-pred. = 90 psi

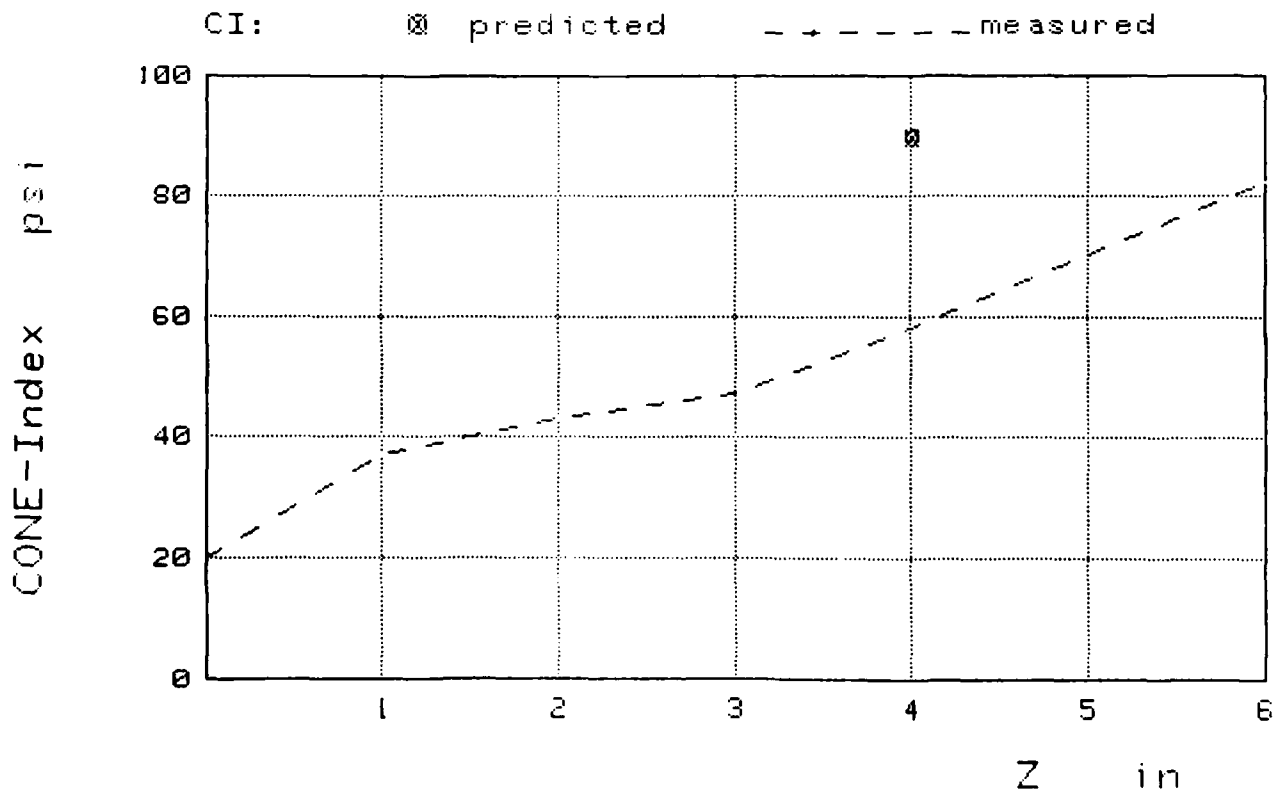


Fig.99

Plots of Predicted and Measured Cone Indices for the Sites Investigated

SITE NO.	QUAD NO.	GRID COORD.	
9	L3730	2720/8630	
COHESION	FRICTION ANGLE	SHEAR MOD.	DENSITY
PSI	DEGREE	PSI	PCI
2.10	7.00	430.00	.0676

Z [in]	CI-meas.[psi]
0.00	7.00
1.00	22.00
2.00	35.00
3.00	37.00
4.00	43.00
5.00	42.00
6.00	50.00

Z = 4 in -> CI-pred. = 47 psi

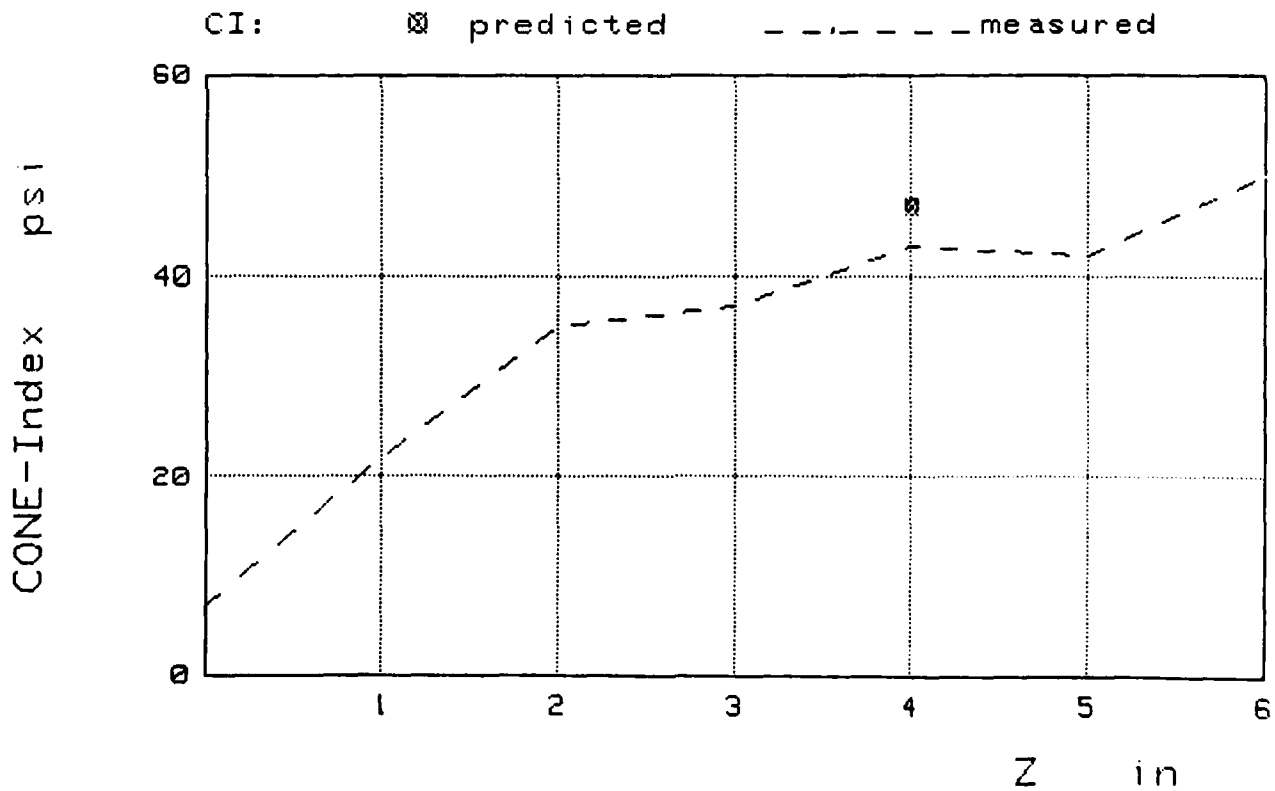


Fig.100

Plots of Predicted and Measured Cone Indices for the Sites Investigated

SITE NO.	QUAD NO.	GRID COORD.	
10	L3730	3050/8775	
COHESION	FRICTION ANGLE	SHEAR MOD.	DENSITY
PSI	DEGREE	PSI	PCI
1.50	12.00	150.00	.0607

Z [in]	CI-meas.[psi]
0.00	4.00
1.00	15.00
2.00	22.00
3.00	34.00
4.00	44.00
5.00	43.00
6.00	49.00

Z = 4 in -> CI-pred. = 42 psi

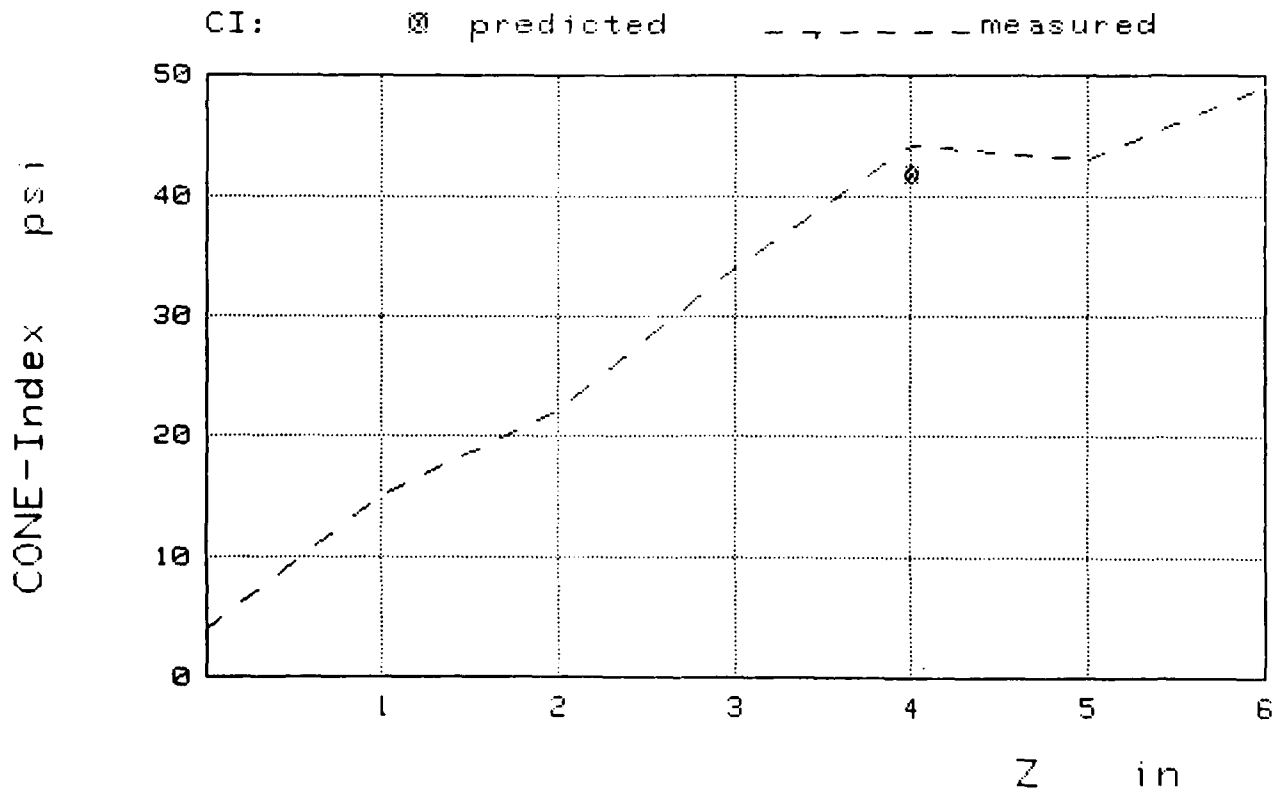


Fig.101

Plots of Predicted and Measured Cone Indices for the Sites Investigated

SITE NO.	QUAD NO.	GRID COORD.	
11	L4724	6630/7525	
COHESION	FRICTION ANGLE	SHEAR MOD.	DENSITY
PSI	DEGREE	PSI	PCI
6.00	8.00	600.00	.0531

Z [in]	CI-meas.[psi]
0.00	10.00
1.00	65.00
2.00	104.00
3.00	113.00
4.00	112.00
5.00	104.00
6.00	99.00

Z = 4 in -> CI-pred. = 123 psi

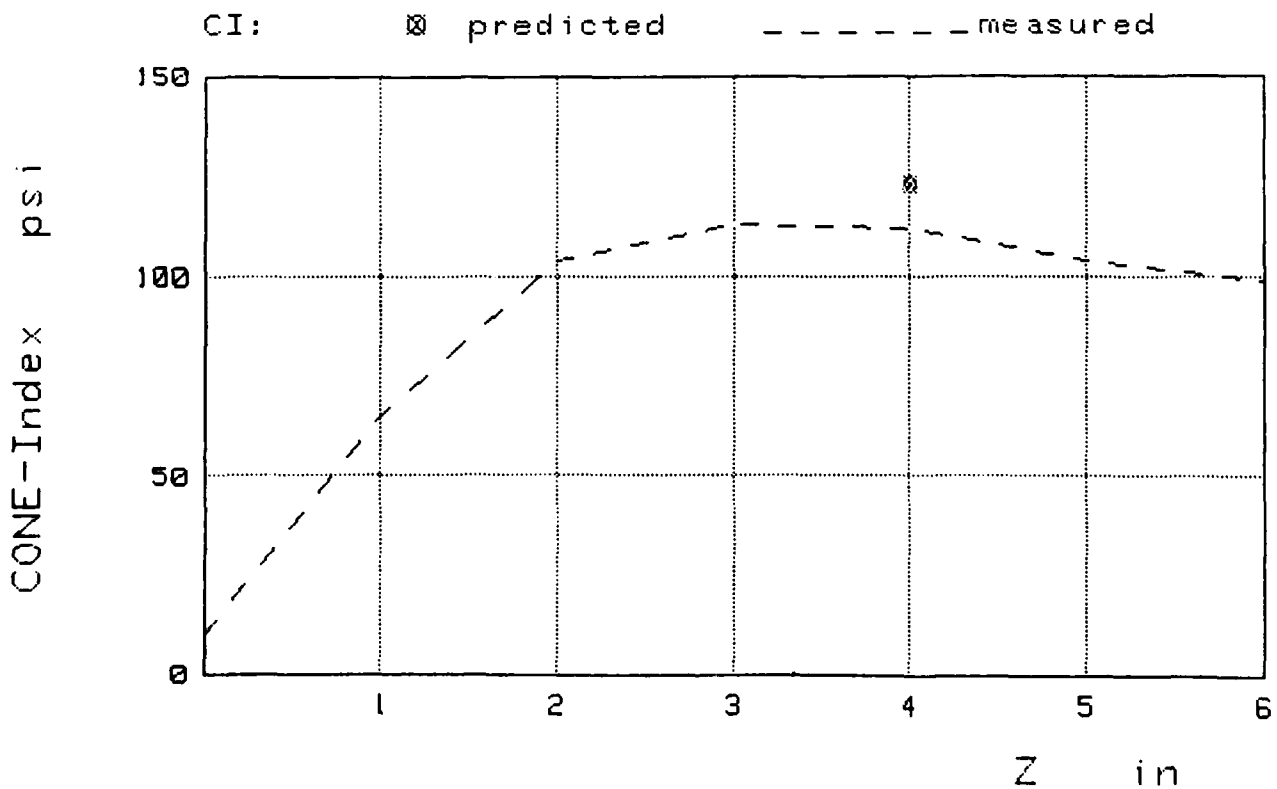


Fig.102

Plots of Predicted and Measured Cone Indices for the Sites Investigated

SITE NO.	QUAD NO.	GRID COORD.	
14	L1322	3480/6285	
COHESION	FRICTION ANGLE	SHEAR MOD.	DENSITY
PSI	DEGREE	PSI	PCI
3.00	18.00	360.00	.0679

Z [in]	CI-meas.[psi]
0.00	6.00
1.00	39.00
2.00	57.00
3.00	58.00
4.00	77.00
5.00	79.00
6.00	96.00

Z = 4 in -> CI-pred. = 129 psi

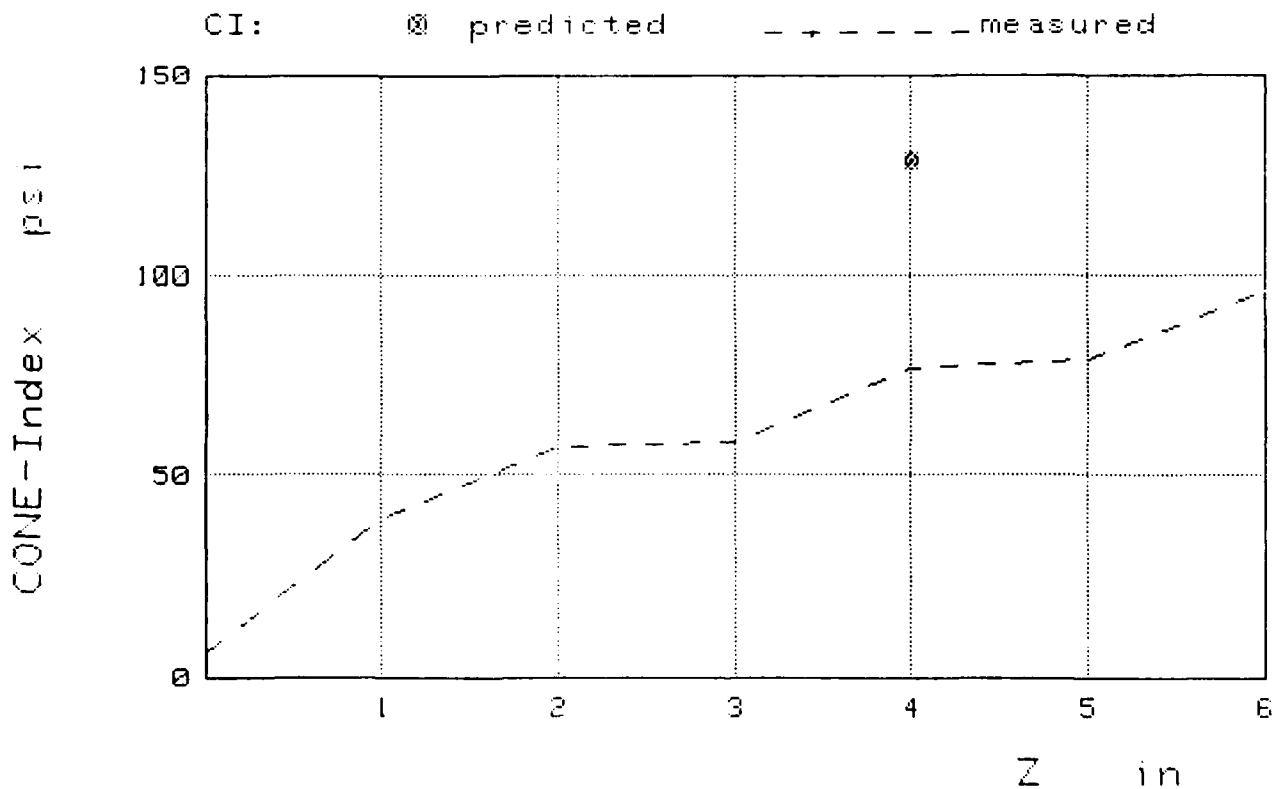


Fig.103 Plots of Predicted and Measured Cone Indices for the Sites Investigated

SITE NO.
20

QUAD NO.
L2724

GRID COORD.
5240/0345

COHESION
PSI
1.50

FRICTION ANGLE
DEGREE
5.00

SHEAR MOD.
PSI
250.00

DENSITY
PCI
.0549

Z [in]	CI-meas.[psi]
0.00	7.00
1.00	8.00
2.00	10.00
3.00	15.00
4.00	25.00
5.00	27.00
6.00	32.00

Z = 5 in -> CI-pred. = 28 psi

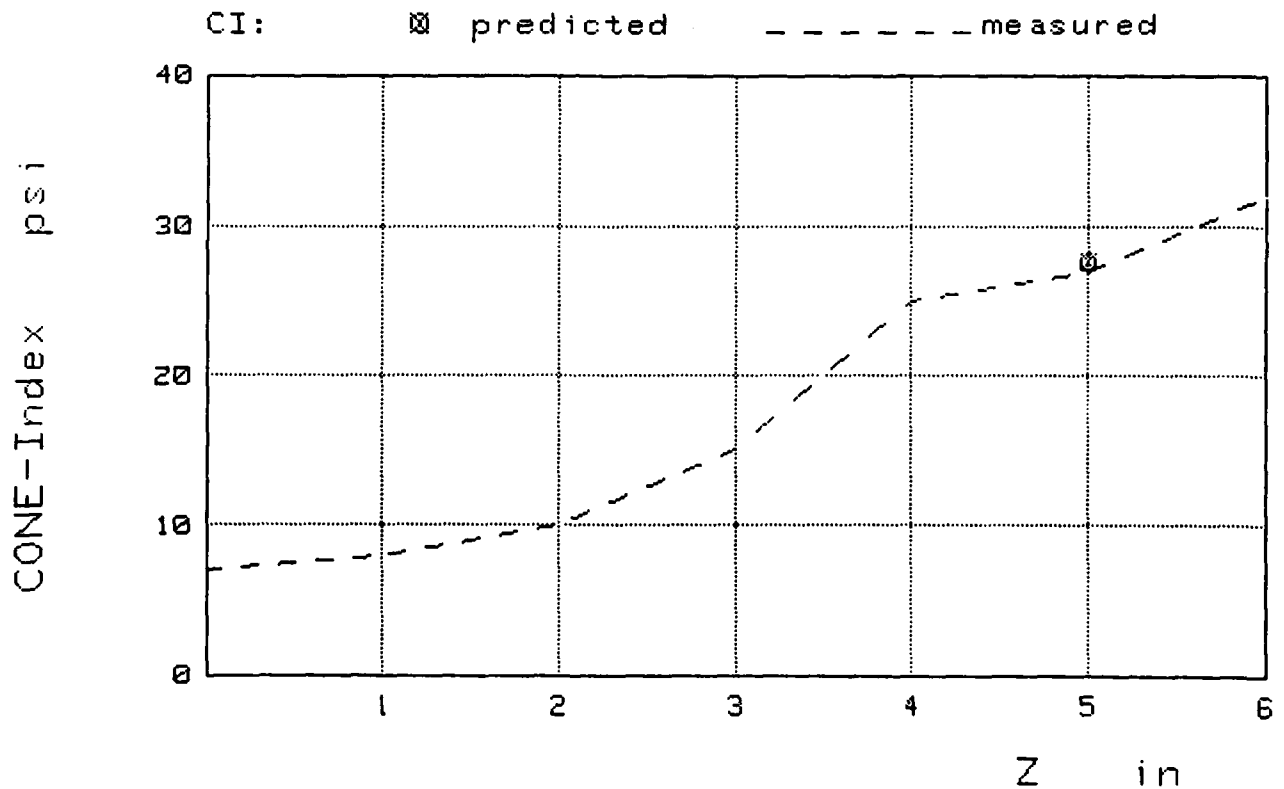


Fig.104

Plots of Predicted and Measured Cone Indices for the
Sites Investigated

SITE NO.	QUAD NO.	GRID COORD.	
25	L5734	6810/7780	
COHESION	FRICTION ANGLE	SHEAR MOD.	DENSITY
PSI	DEGREE	PSI	PCI
1.50	10.00	140.00	.0549
Z [in]	CI-meas.[psi]		
0.00	31.00		
1.00	46.00		
2.00	42.00		
3.00	55.00		
4.00	67.00		
5.00	83.00		
6.00	92.00		

Z = 4 in -> CI-pred. = 36 psi

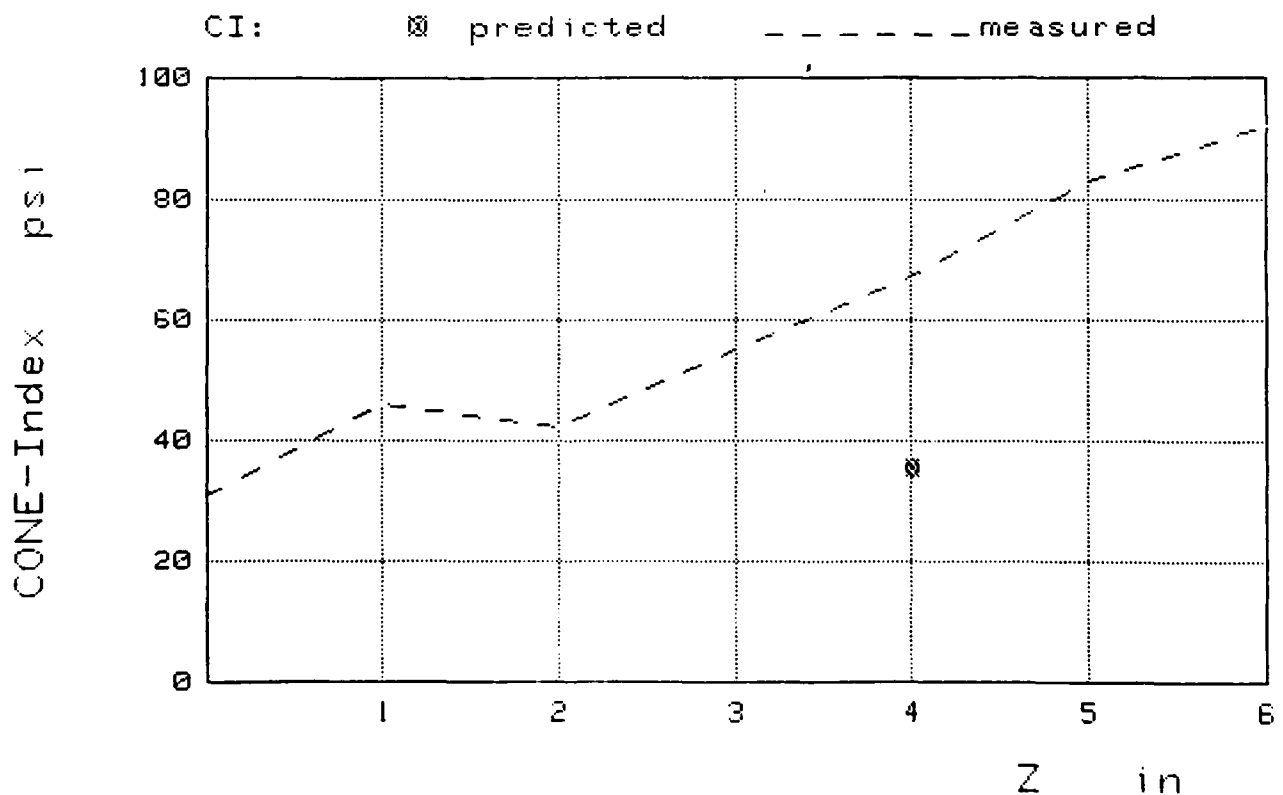


Fig.105

Plots of Predicted and Measured Cone Indices for the Sites Investigated

SITE NO.
27

QUAD NO.
L5934

GRID COORD.
8255/5535

COHESION
PSI
4.00

FRICTION ANGLE
DEGREE
7.00

SHEAR MOD.
PSI
560.00

DENSITY
PCI
.0524

Z [in]	CI-meas.[psi]
0.00	43.00
1.00	70.00
2.00	59.00
3.00	74.00
4.00	90.00
5.00	99.00
6.00	105.00

Z = 4 in -> CI-pred. = 82 psi

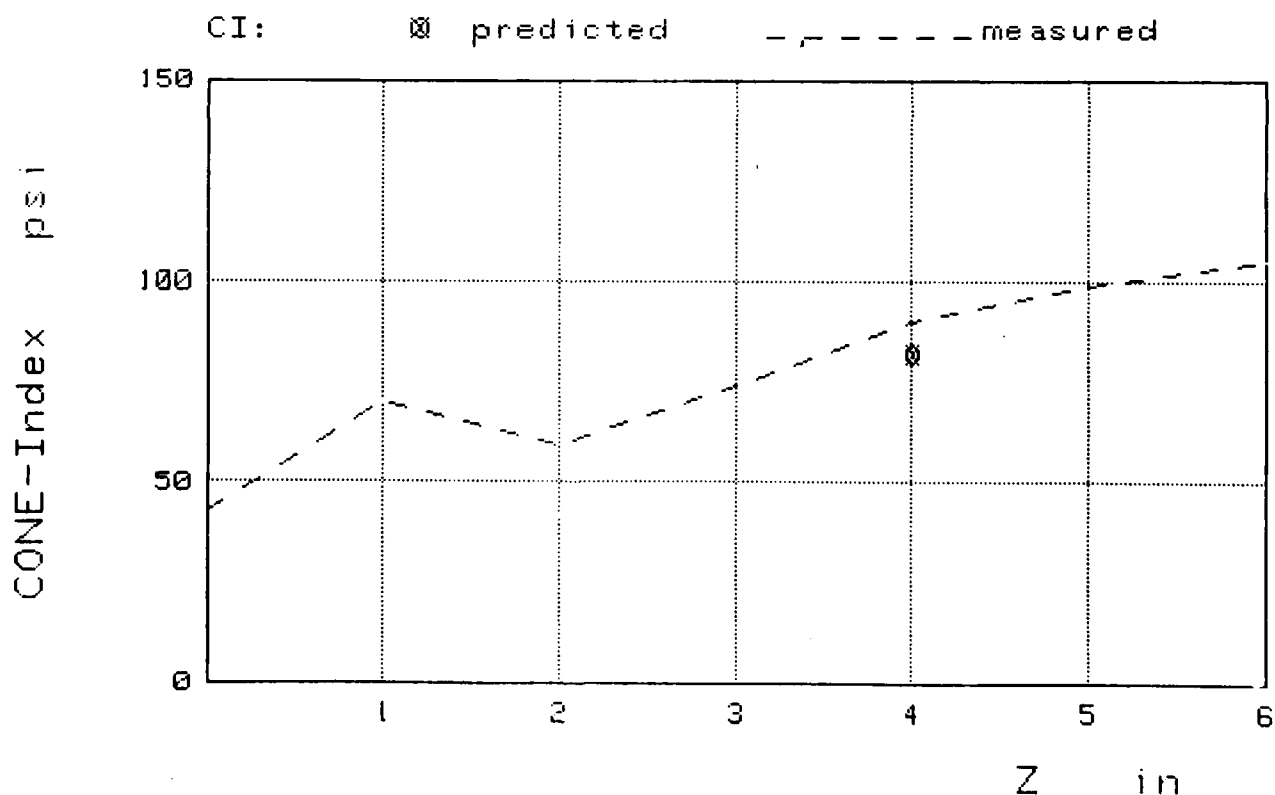


Fig.106

Plots of Predicted and Measured Cone Indices for the Sites Investigated

SITE NO.	QUAD NO.	GRID COORD.
28	L6334	3535/1800

COHESION	FRICTION ANGLE	SHEAR MOD.	DENSITY
PSI	DEGREE	PSI	PCI
9.00	0.00	970.00	.0574

Z [in]	CI-meas.[psi]
0.00	29.00
1.00	61.00
2.00	61.00
3.00	63.00
4.00	67.00
5.00	78.00
6.00	96.00

Z = 5 in -> CI-pred. = 102 psi

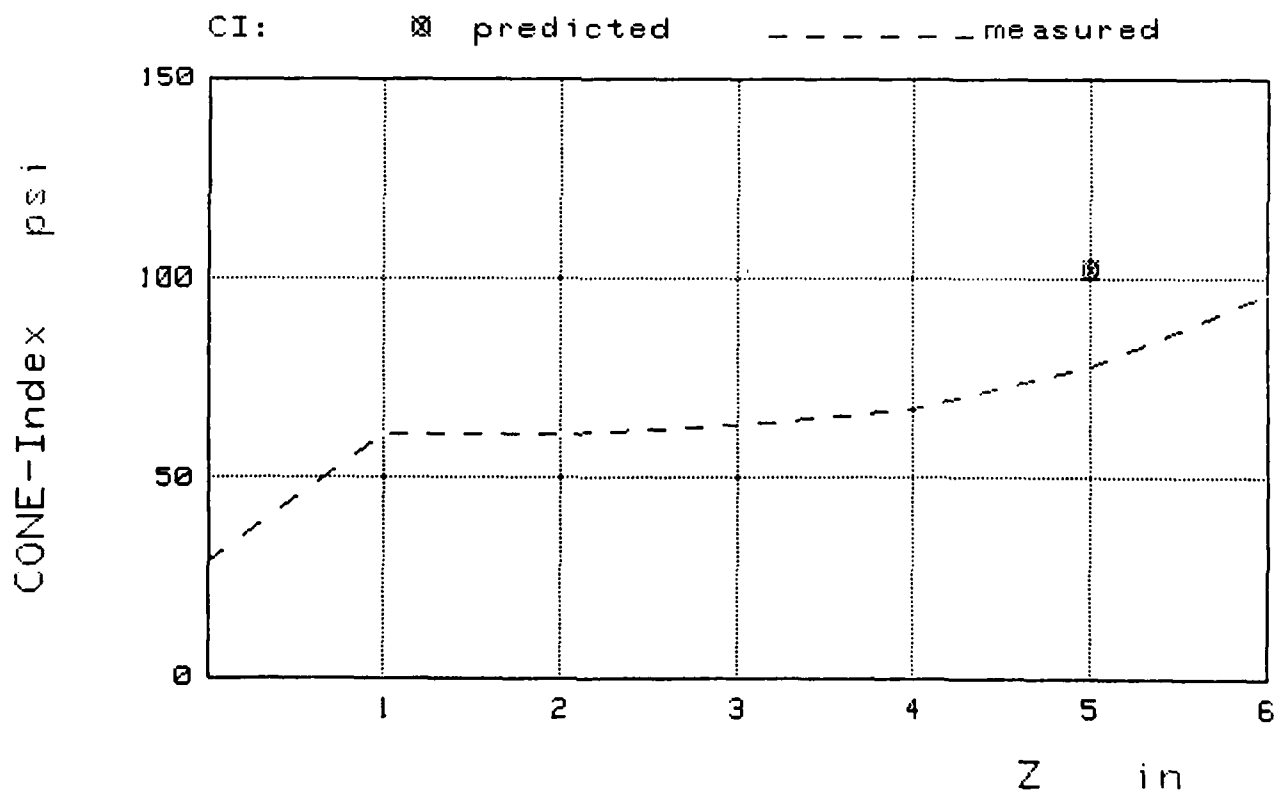


Fig.107

Plots of Predicted and Measured Cone Indices for the Sites Investigated

SITE NO.
34

QUAD NO.
L8118

GRID COORD.
8045/9530

COHESION
PSI
4.00

FRICTION ANGLE
DEGREE
0.00

SHEAR MOD.
PSI
520.00

DENSITY
PCI
.0481

Z [in]	CI-meas.[psi]
0.00	6.00
1.00	27.00
2.00	38.00
3.00	48.00
4.00	53.00
5.00	57.00
6.00	62.00

Z = 4 in -> CI-pred. = 47 psi

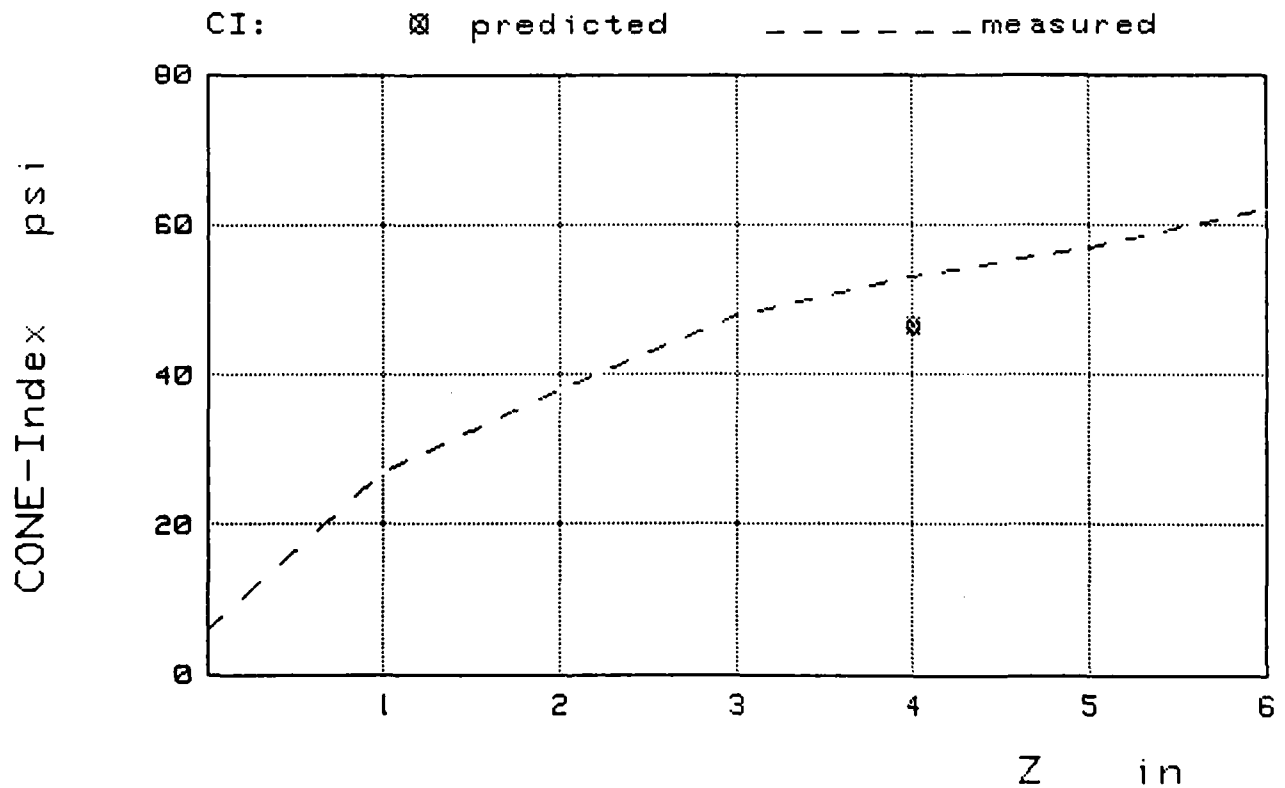


Fig.108

Plots of Predicted and Measured Cone Indices for the
Sites Investigated

SITE NO.
35

QUAD NO.
L6510

GRID COORD.
8480/7100

COHESION
PSI
4.00

FRICTION ANGLE
DEGREE
5.00

SHEAR MOD.
PSI
250.00

DENSITY
PCI
.0643

Z [in]	CI-meas.[psi]
0.00	17.00
1.00	32.00
2.00	40.00
3.00	43.00
4.00	43.00
5.00	53.00
6.00	61.00

Z = 6 in -> CI-pred. = 61 psi

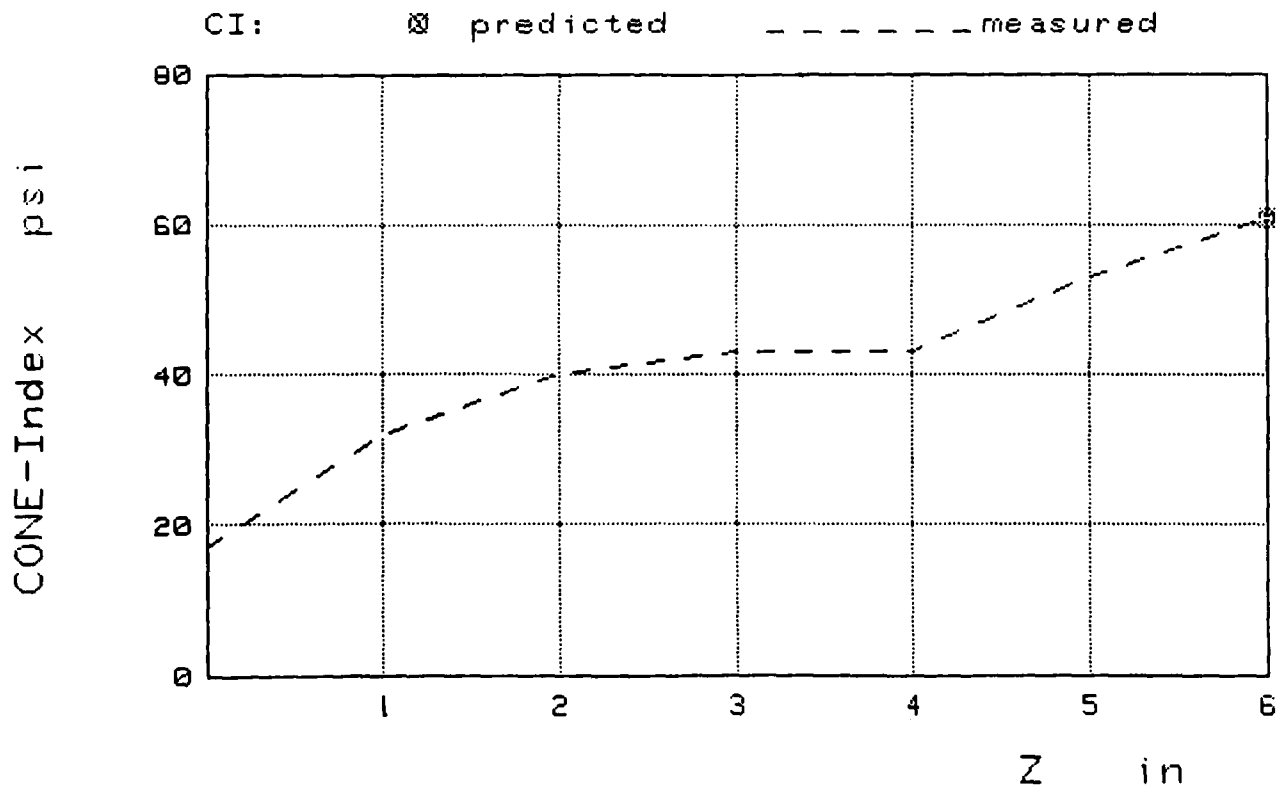


Fig.109

Plots of Predicted and Measured Cone Indices for the
Sites Investigated

SITE NO. 1 QUAD NO. L5916 GRID COORD. 6050/4170

COHESION PSI	FRICTION ANGLE DEGREE	SHEAR MOD. PSI	DENSITY PCI	
.80	14.00	140.00	.0585	1.0 in
.80	14.00	300.00	.0585	4.0 in
1.00	18.00	500.00	.0585	6.0 in
1.50	18.00	600.00	.0585	9.0 in

Z [in]	CI [psi]	CI-meas.[psi]
0.00	32.88	24.00
1.00	38.67	50.00
2.00	39.20	50.00
3.00	48.63	56.00
4.00	73.93	64.00
5.00	82.24	75.00
6.00	100.39	96.00

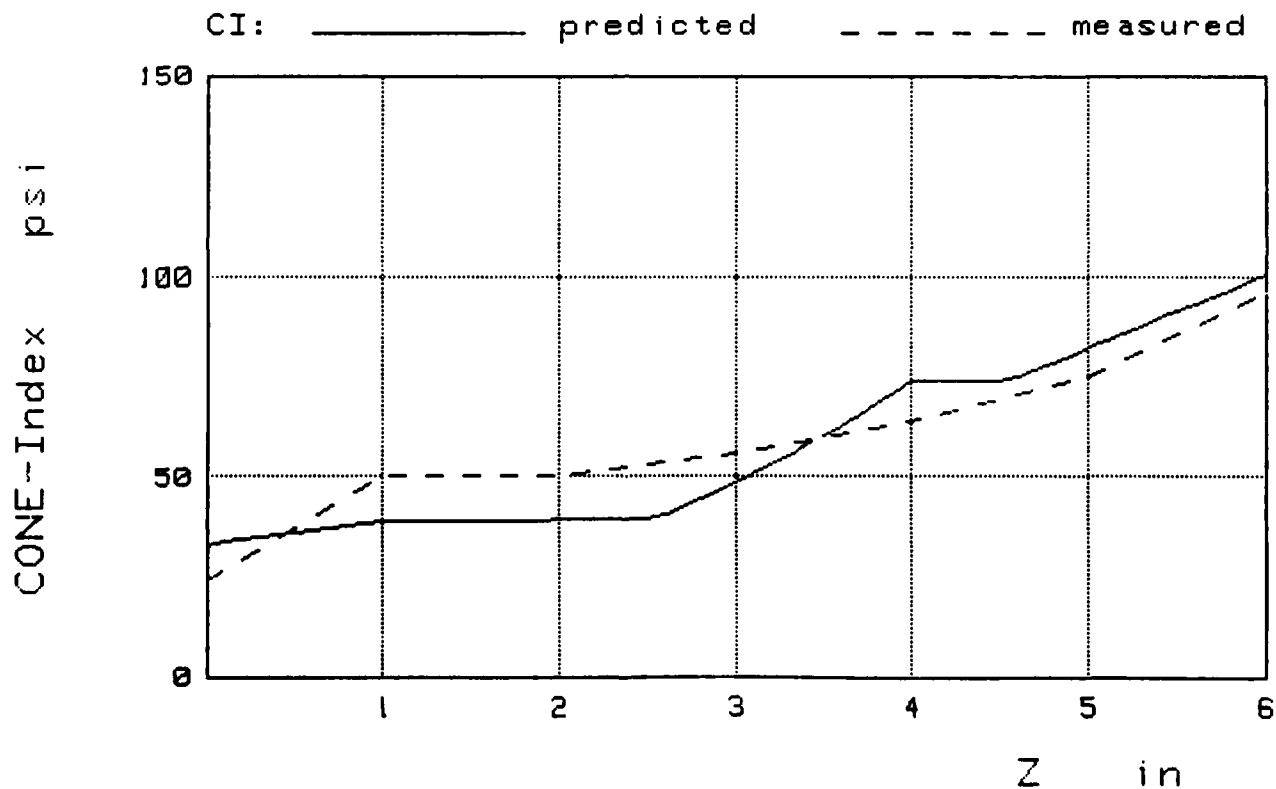


Fig.110

Plots of Predicted and Measured Cone Indices for the Sites Investigated

SITE NO.
3

QUAD NO.
L5918

GRID COORD.
8340/4665

COHESION PSI	FRICTION ANGLE DEGREE	SHEAR MOD. PSI	DENSITY PCI	
1.00	4.00	180.00	.0376	1.5 in
2.00	6.00	300.00	.0376	3.5 in
3.00	8.00	400.00	.0376	6.0 in
3.50	8.00	450.00	.0376	9.0 in

Z [in]	CI [psi]	CI-meas.[psi]
0.00	16.95	15.00
1.00	30.68	30.00
2.00	38.68	44.00
3.00	55.95	59.00
4.00	65.91	66.00
5.00	69.20	68.00
6.00	76.20	74.00

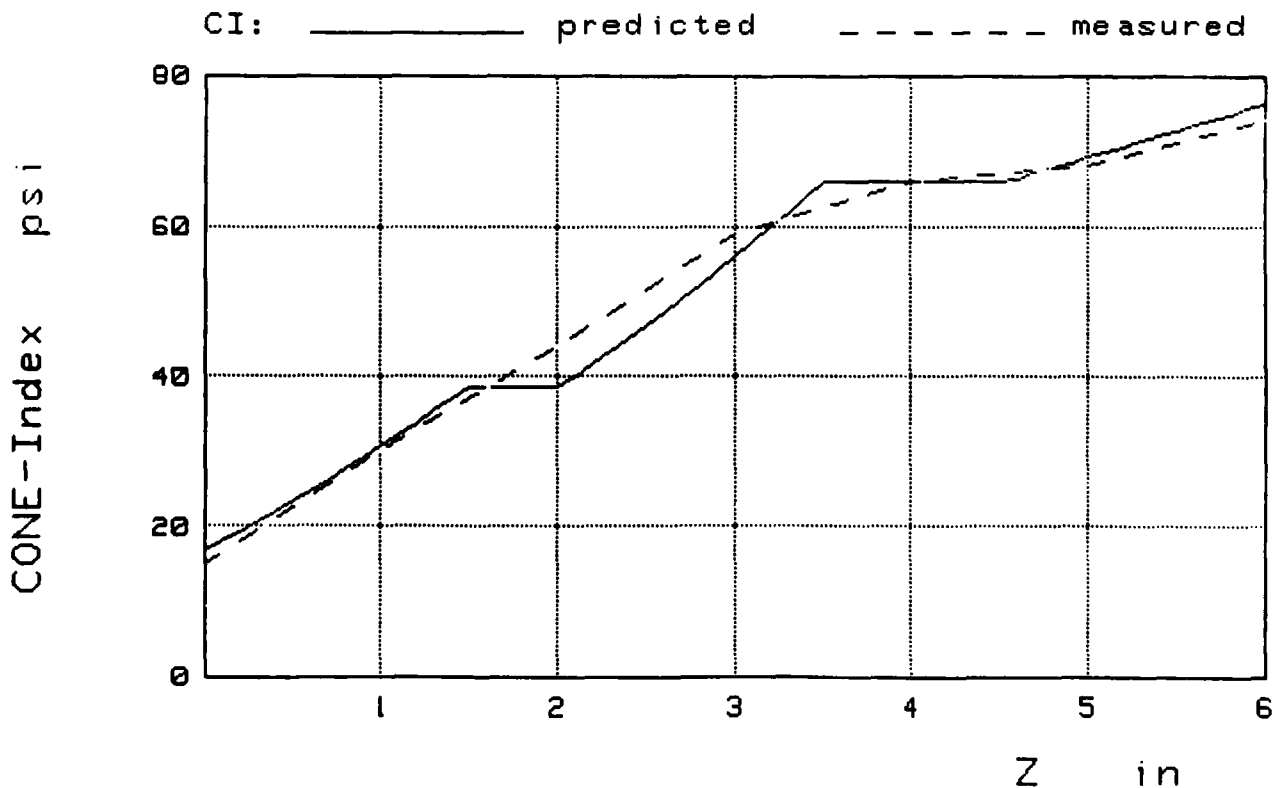


Fig.111

Plots of Predicted and Measured Cone Indices for the
Sites Investigated

SITE NO.
9

QUAD NO.
L3720

GRID COORD.
2720/8630

COHESION PSI	FRICTION ANGLE DEGREE	SHEAR MOD. PSI	DENSITY PCI	
.50	0.00	100.00	.0676	1.0 in
.80	4.00	200.00	.0676	2.5 in
2.00	7.00	400.00	.0676	6.5 in
2.50	7.00	500.00	.0676	9.0 in

Z [in]	CI [psi]	CI-meas.[psi]
0.00	8.44	7.00
1.00	14.85	22.00
2.00	33.41	35.00
3.00	45.10	37.00
4.00	45.17	43.00
5.00	45.23	42.00
6.00	52.44	50.00

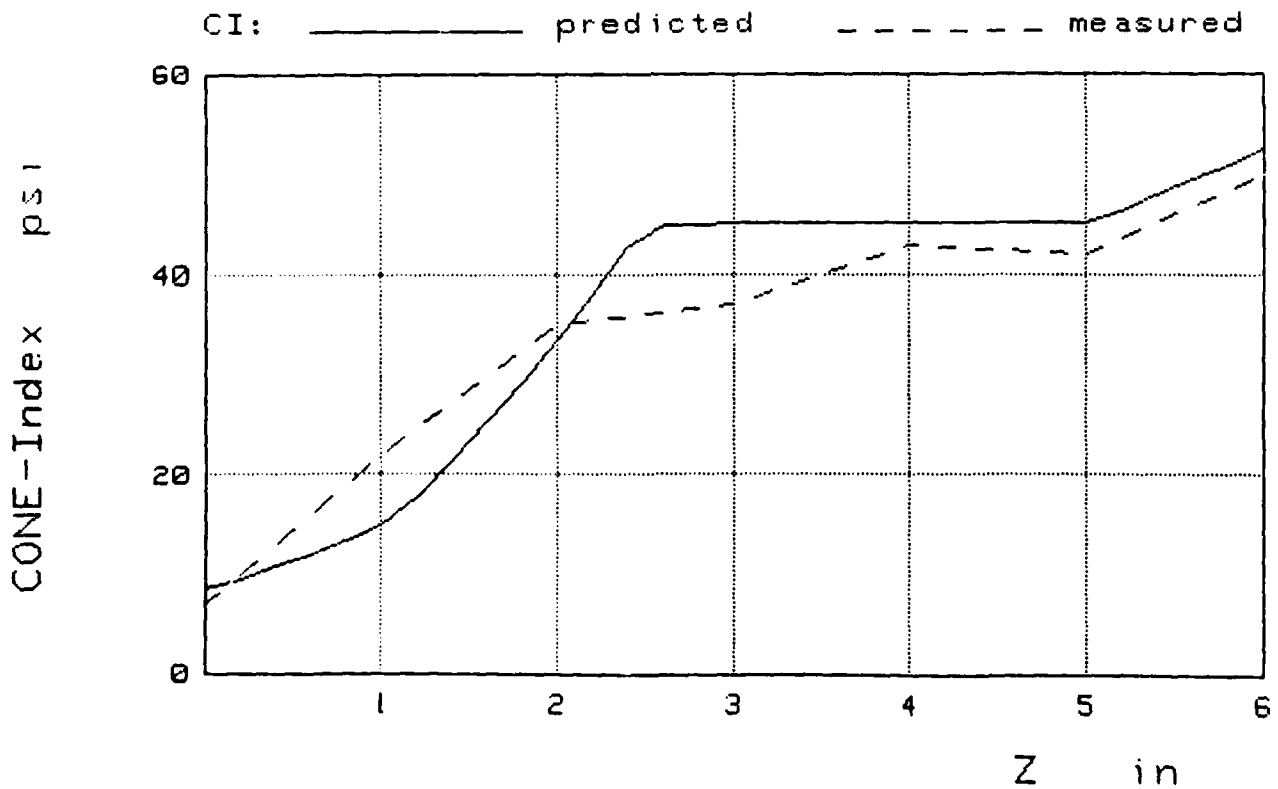


Fig.112

Plots of Predicted and Measured Cone Indices for the
Sites Investigated

SITE NO.
10

QUAD NO.
L3730

GRID COORD.
3050/8775

COHESION	FRICTION ANGLE	SHEAR MOD.	DENSITY	
PSI	DEGREE	PSI	PCI	
.30	8.00	100.00	.0607	1.5 in
.80	10.00	100.00	.0607	3.5 in
1.50	12.00	200.00	.0607	6.0 in
1.50	12.00	250.00	.0607	9.0 in

Z [in]	CI [psi]	CI-meas.[psi]
0.00	8.56	4.00
1.00	16.94	15.00
2.00	21.36	22.00
3.00	36.77	34.00
4.00	45.82	44.00
5.00	46.68	43.00
6.00	48.74	49.00

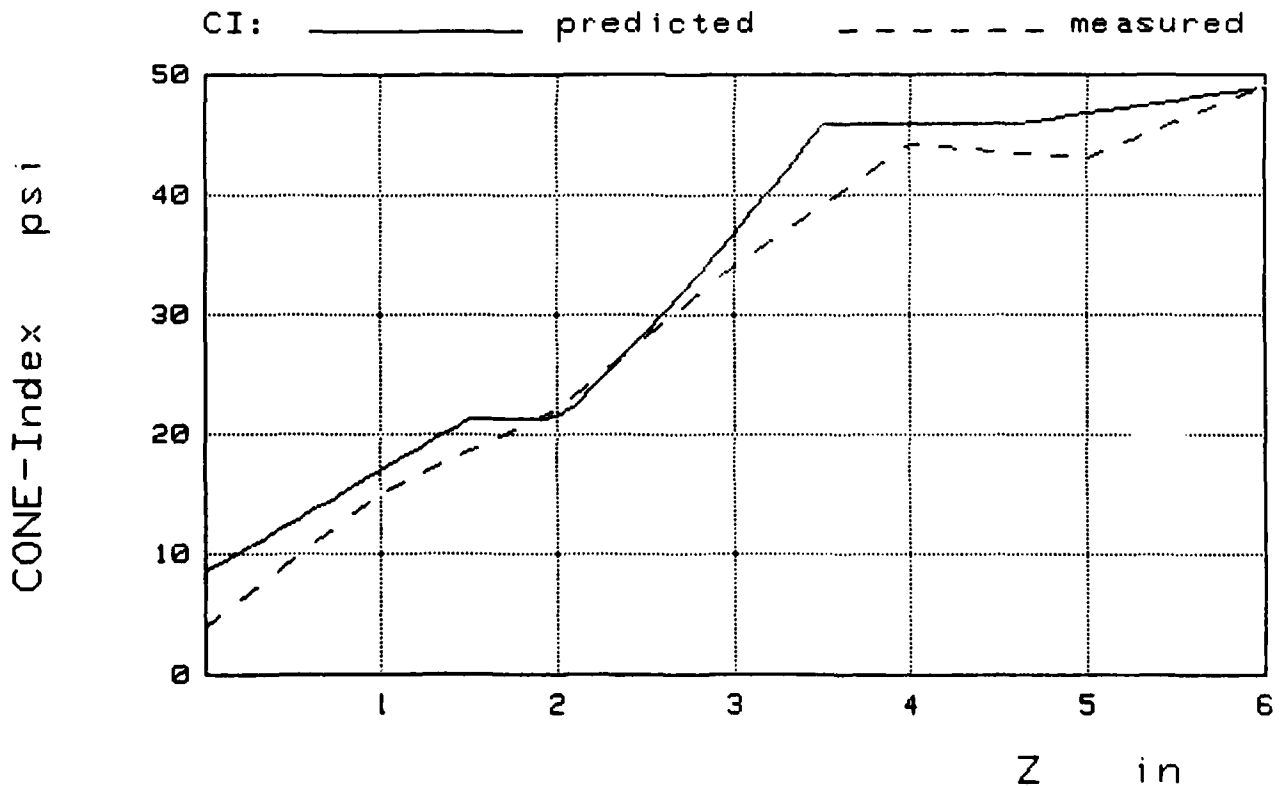


Fig.113

Plots of Predicted and Measured Cone Indices for the
Sites Investigated

SITE NO. 11 QUAD NO. L4724 GRID COORD. 6630/7525

COHESION PSI	FRICTION ANGLE DEGREE	SHEAR MOD. PSI	DENSITY PCI	
1.00	0.00	200.00	.0531	1.0 in
3.00	4.00	700.00	.0531	2.0 in
6.00	8.00	500.00	.0531	4.0 in
6.00	8.00	400.00	.0531	9.0 in

Z [in]	CI [psi]	CI-meas.[psi]
0.00	22.81	10.00
1.00	73.06	65.00
2.00	118.32	104.00
3.00	116.66	113.00
4.00	112.71	112.00
5.00	112.75	104.00
6.00	112.78	99.00

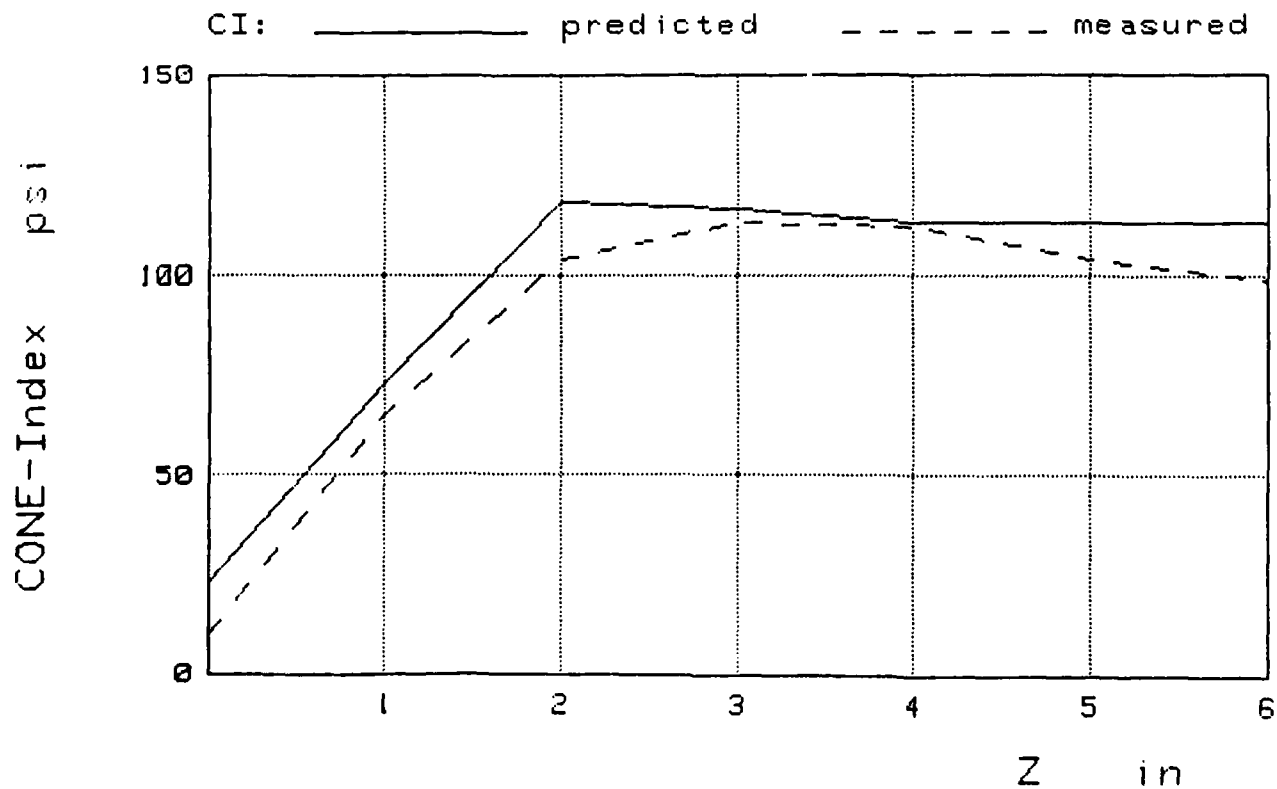


Fig.114

Plots of Predicted and Measured Cone Indices for the Sites Investigated

SITE NO.
20

QUAD NO.
L2724

GRID COORD.
5240/0345

COHESION PSI	FRICTION ANGLE DEGREE	SHEAR MOD. PSI	DENSITY PCI	
.60	2.00	120.00	.0550	2.0 in
.90	3.00	150.00	.0550	4.0 in
1.20	5.00	300.00	.0550	6.0 in
1.80	5.00	350.00	.0550	9.0 in

Z [in]	CI [psi]	CI-meas.[psi]
0.00	8.82	7.00
1.00	10.58	8.00
2.00	14.24	10.00
3.00	17.08	15.00
4.00	23.93	25.00
5.00	27.19	27.00
6.00	34.04	32.00

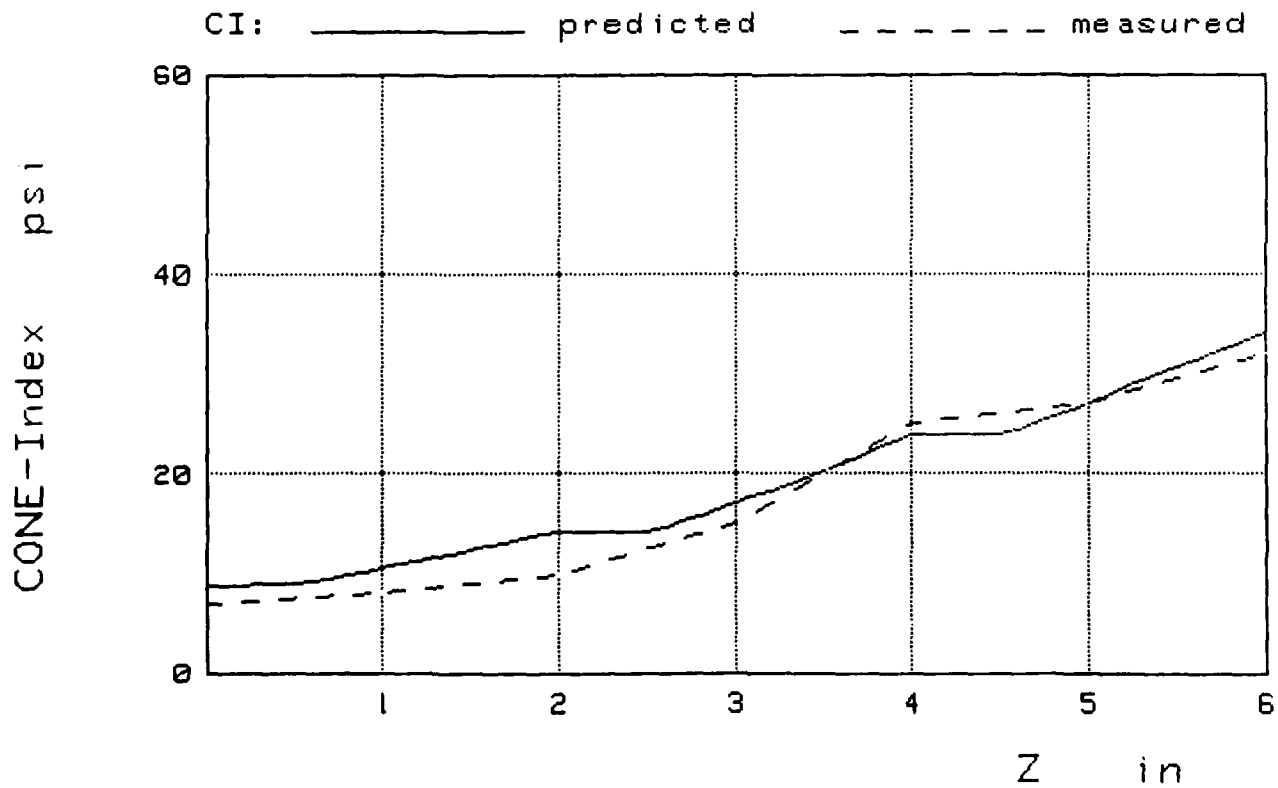


Fig.115

Plots of Predicted and Measured Cone Indices for the Sites Investigated

SITE NO.
27

QUAD NO.
L5934

GRID COORD.
8255/5535

COHESION PSI	FRICTION ANGLE DEGREE	SHEAR MOD. PSI	DENSITY PCI	
2.50	5.00	200.00	.0524	1.0 in
3.50	6.00	400.00	.0524	4.0 in
4.00	7.00	600.00	.0524	6.0 in
5.00	7.00	800.00	.0524	9.0 in

Z [in]	CI [psi]	CI-meas.[psi]
0.00	47.12	43.00
1.00	64.00	70.00
2.00	64.13	59.00
3.00	70.16	74.00
4.00	83.51	90.00
5.00	90.59	99.00
6.00	105.52	105.00

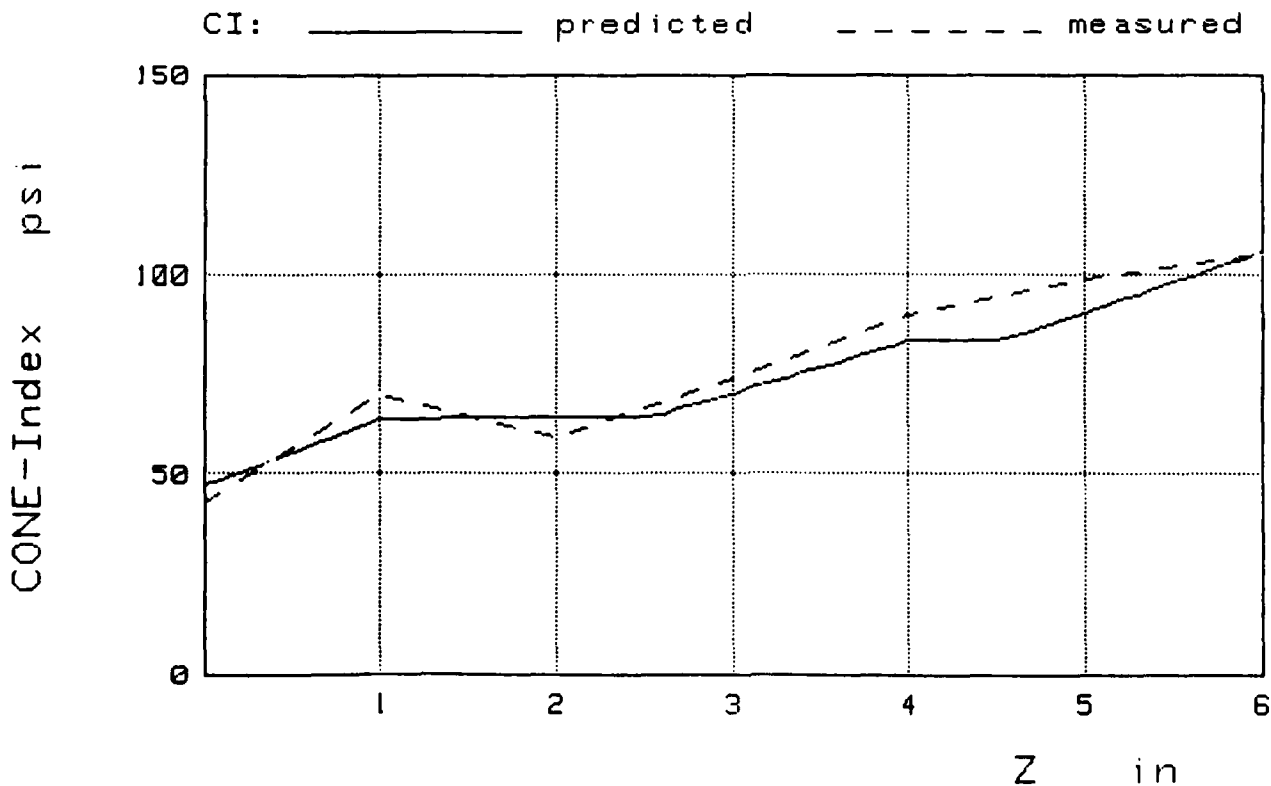


Fig.116

Plots of Predicted and Measured Cone Indices for the
Sites Investigated

SITE NO.
28

QUAD NO.
L6334

GRID COORD.
3535/1800

COHESION PSI	FRICTION ANGLE DEGREE	SHEAR MOD. PSI	DENSITY PCI	
1.50	0.00	300.00	.0629	1.0 in
5.00	0.00	800.00	.0629	5.5 in
9.00	0.00	900.00	.0629	7.0 in
9.00	0.00	1200.00	.0629	9.0 in

Z [in]	CI [psi]	CI-meas.[psi]
0.00	31.72	29.00
1.00	59.57	61.00
2.00	59.64	62.00
3.00	59.67	63.00
4.00	59.70	67.00
5.00	87.55	78.00
6.00	102.67	96.00

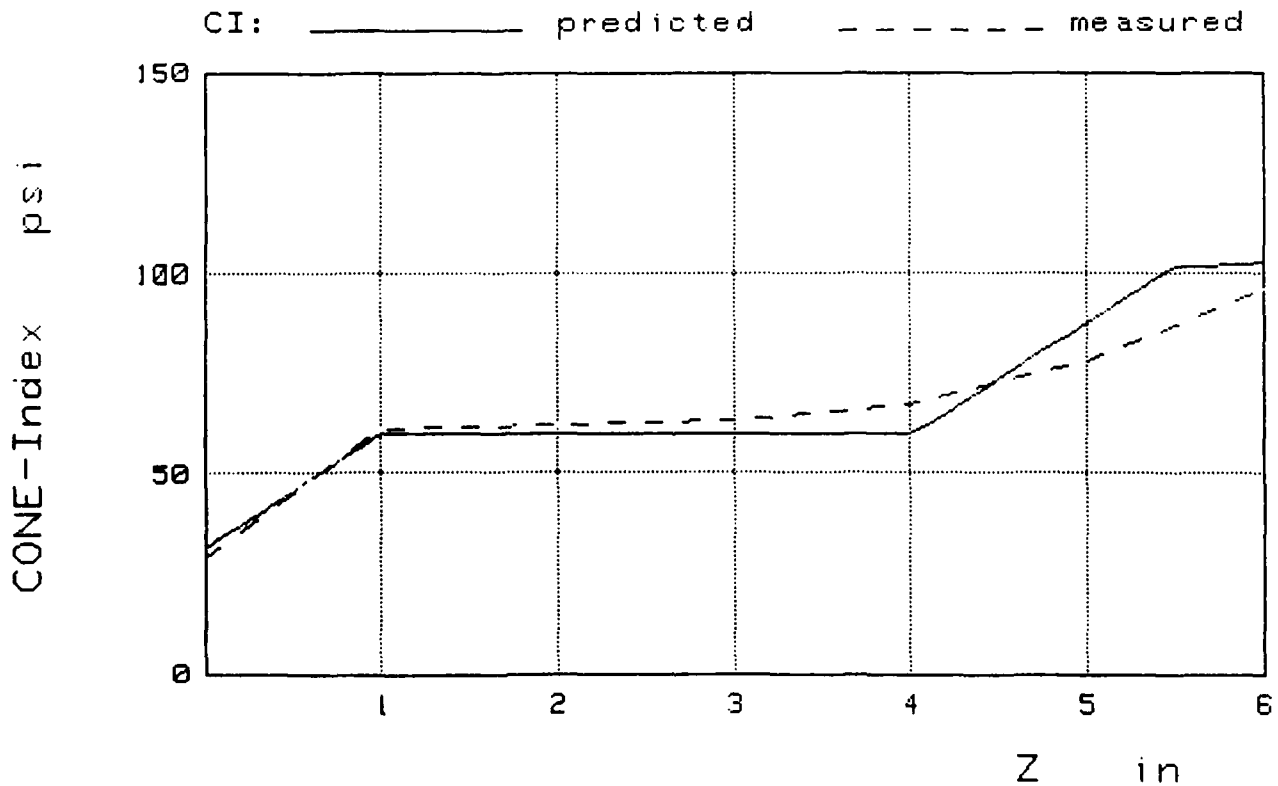


Fig.117

Plots of Predicted and Measured Cone Indices for the
Sites Investigated

SITE NO.
34

QUAD NO.
L8118

GRID COORD.
8045/9530

COHESION PSI	FRICTION ANGLE DEGREE	SHEAR MOD. PSI	DENSITY PCI	
.80	0.00	250.00	.0481	1.5 in
4.00	0.00	400.00	.0481	4.0 in
4.50	0.00	600.00	.0481	6.0 in
5.00	0.00	800.00	.0481	9.0 in

Z [in]	CI [psi]	CI-meas.[psi]
0.00	10.32	6.00
1.00	33.69	27.00
2.00	45.16	38.00
3.00	47.61	48.00
4.00	52.53	53.00
5.00	54.84	57.00
6.00	59.56	62.00

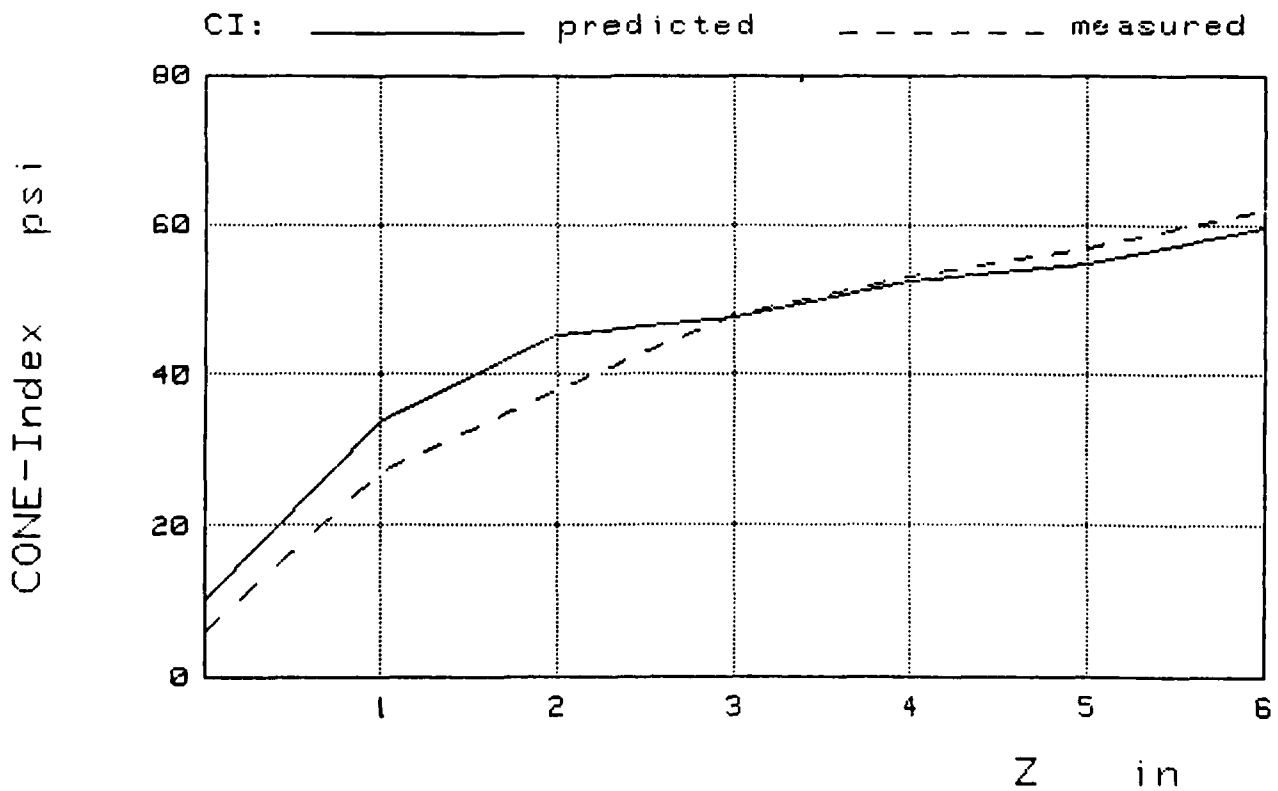


Fig.1118

Plots of Predicted and Measured Cone Indices for the Sites Investigated

SITE NO.
35

QUAD NO.
L6510

GRID COORD.
8480/7100

COHESION PSI	FRICTION ANGLE DEGREE	SHEAR MOD. PSI	DENSITY PCI	
2.00	0.00	200.00	.0643	2.0 in
4.00	0.00	240.00	.0643	4.0 in
4.00	0.00	260.00	.0643	6.0 in
5.50	0.00	300.00	.0643	7.5 in

Z [in]	CI [psi]	CI-meas.[psi]
0.00	22.58	17.00
1.00	29.17	32.00
2.00	42.45	40.00
3.00	42.59	43.00
4.00	42.92	43.00
5.00	47.69	53.00
6.00	57.63	61.00

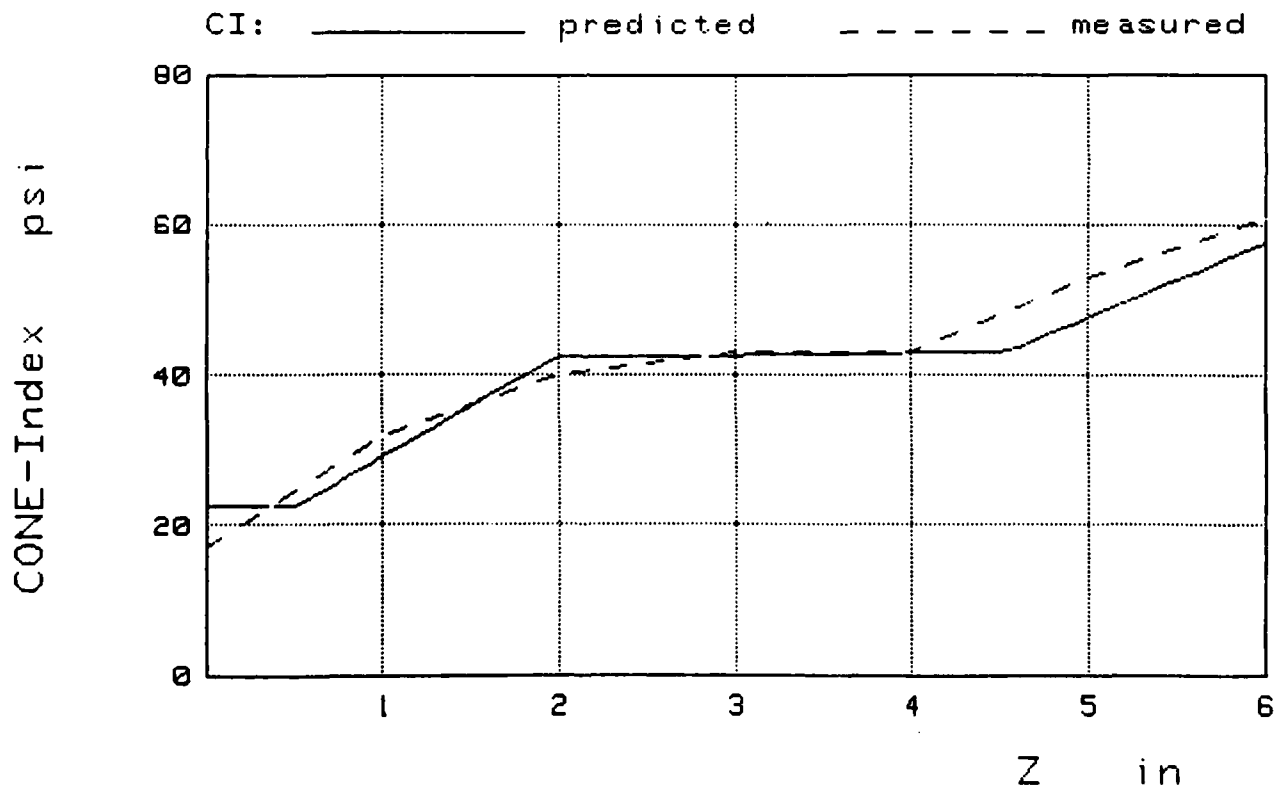


Fig.119

Plots of Predicted and Measured Cone Indices for the
Sites Investigated

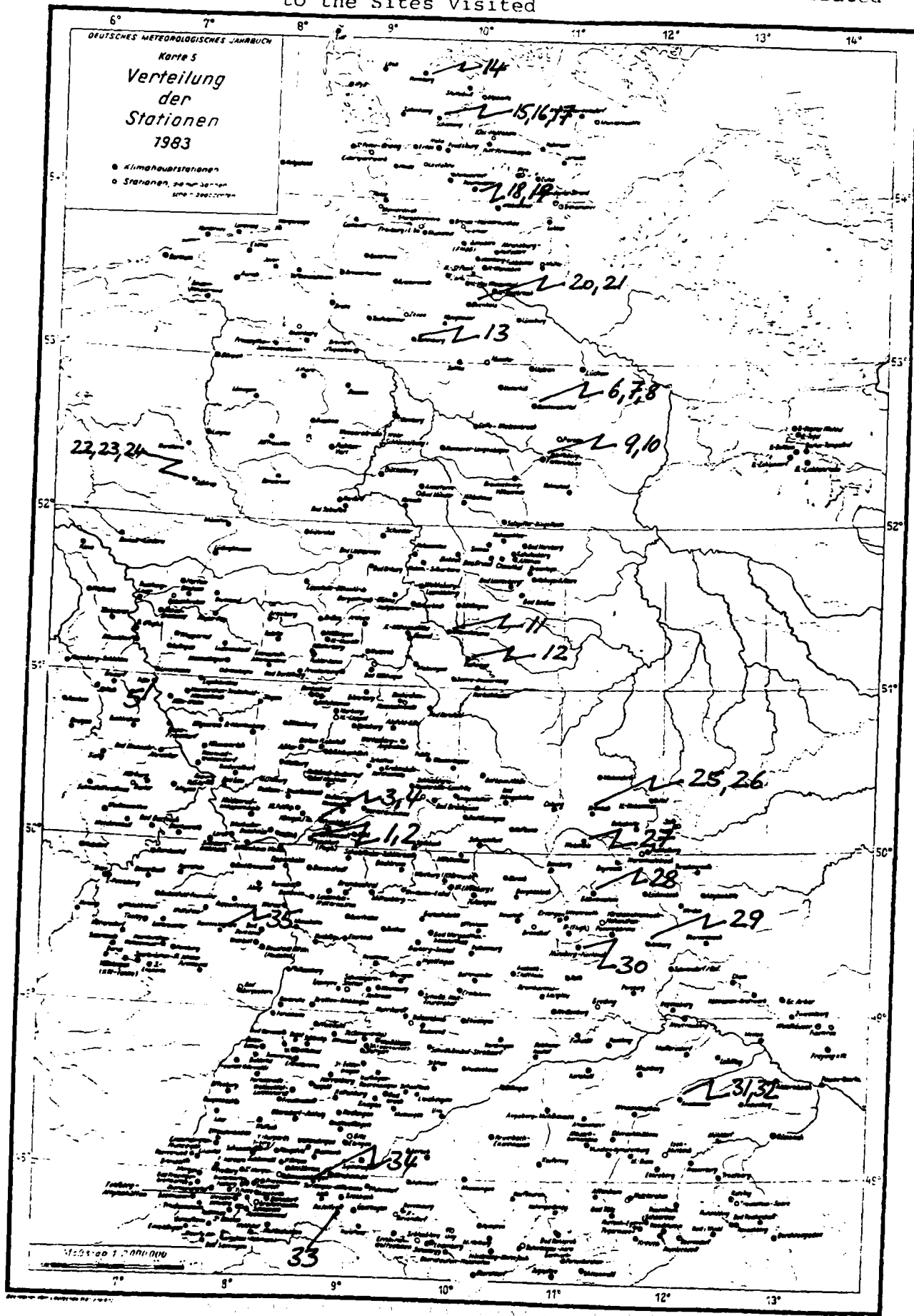
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Table 8	Summary of the Test Site Data Obtained
Table 9	Mean Values for the Correlation Coefficient r_i
Table 10	Comparison of Predicted and Measured Cone Index Values

Table 1 Site Characteristics and Locations Within FRG Terrain
(Critical Sites Shown by *)

Site No.	Quad Sheet (Generic Region)	Grid Coord. (UTM)	CI 0 - 6" (May 85)	RI 0 - 6" (May 85)	RCI 0 - 6" (May 85)	CI 0 - 6" (Oct. 84)	Weather Station
1*	L 5916	6050/4170	59	0.79	47	40	Frankfurt
2*	"	6001/4565	59	0.75	44	83	
3*	L 5918	8340/4665	51	0.41	21	77	Offenbach
4	" (1)	6930/1280	39	1	39	-	
5*	L 5106	3910/3595	61	1	61	48	Köln
6*	L 3528	0670/2725	48/(82)	0.79/(0.59)	38/(48)	106	Hankensbüttel
7*	"	0600/2325	51	0.43	22	110	
8*	"	0500/2526	72	0.46	33	69	Wolfsburg
9*	L 3730	2720/8630	34	0.48	16	52	
10	" (2)	3050/8775	30	0.45	14	-	Witzenhausen
11*	L 4724	6630/7525	87	0.85	74	114	
12*	L 4924 (21)	6425/7075	86	0.60	52	112	Eschwege
13*	L 3122 (6)	3560/6820	79/(104)	0.77/(0.47)	58/(49)	117	Rotenburg
14	L 1322 (1)	3480/6285	59	0.53	31	-	Flensburg
15	L 1522	2940/3740	14	1	14	-	Schleswig
16	"	3585/3440	124	0.93	115	148	
17*	" (2)	3600/3055	26	1	26	65	Neumünster
18	L 1924	6140/0185	37	0.34	13	-	
19*	"	6140/0280	49	0.60	30	48	Buchholz
20*	L 2724	5240/0345	18	0.52	9	38	
21*	"	5375/9960	27	0.56	15	57	Ochtrup
22*	L 3908 (6)	8200/6815	44	1	44	43	
23	"	8200/6815	17	0.37	6	-	Kronach
24	"	8160/6845	22	0.30	7	-	
25*	L 5734	6810/7780	59	0.48	28	109	Weismain
26	L 5934 (26)	8165/5470	127	-	-	89	
27*	L 5934	8255/5535	77	0.37	29	119	Gössweinstein
28*	L 6334	3535/1800	65/(109)	0.53/(0.68)	35/(74)	97	
29*	L 6536	9390/8950	82	1	82	64	Amberg
30*	L 6534 (48)	8920/8965	58	1	58	50	Nürnberg
31	L 7738	8480/4710	43	0.61	26	-	Kumhausen
32	"	8760/4350	101	0.95	96	99	
33	L 8318	8140/8950	62	1	62	-	Radolfzell
34*	L 8118 (48)	8045/9530	41	0.88	36	69	Tuttlingen
35*	L 6510 (21)	8480/7100	41/(70)	0.45/(0.38)	18/(27)	25	Kaiserslautern

Table 1 ctd. Distribution of Climatological Stations Related to the Sites Visited



Legend of Meteorological Data for Tables 2-6

Headings of columns 1 to 29

- 1 Station
- 2 Altitude above sea level
- 3 Mean temperature ($^{\circ}\text{C}$)
- 4 Deviation from mean value 1931-1960 ($^{\circ}\text{C}$)
- 5 Maximum temperature ($^{\circ}\text{C}$)
- 6 Maximum temperature at ... (date = day of current month)
- 7 Minimum temperature ($^{\circ}\text{C}$)
- 8 Minimum temperature at ... (date = day of current month)
- 9 Minimum temperature on ground level
- 10 Minimum temperature at ... (date = day of current month)
- 11 Relative humidity, %
- 12 Cloudiness
- 13 Precipitation (mm)
- 14 Precipitation in % of the 1931-1960 mean value
- 15 Number of days with precipitation above 0.1 mm
- 16 Number of days with precipitation above 1.0 mm
- 17 Number of days with precipitation above 10.0 mm
- 18 Number of days with snow fall above 0.1 mm
- 19 Number of days with snow cover
- 20 Number of foggy days
- 21 Number of thunderstorm days
- 22 Number of clear/fair days
- 23 Number of cloudy days
- 24 Number of hot days
- 25 Number of summer days
- 26 Number of frost days
- 27 Number of ice days
- 28 Sunshine period in hours
- 29 Sunshine period in % of the 1951-1960 mean

September 1984

Monatswerte

Table 2

Meteorological/Climatological Data for the Areas of Investigation (September 1984)

Station	Höhe über NN m	Lufttemperatur in °C								Zahl der Tage										Sonnen- schein- dauer in %																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
		Mittel		Abweichung 1		hochste		Datum		tiefe		Datum		tiefe am Erdboden		Datum		Luftfeuchtigkeit in %		Höhe in mm		Luftfeuchtigkeit in %		Niederschlag in mm		Schnee fall in mm		Schnee decke in cm		Nebel		Gewitter		heitere		trübe		Sonnentage		Frosttage		Eisstage		Sonnen- schein- dauer in %																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	1222	1223	1224	1225	1226	1227	1228	1229	1230	1231	1232	1233	1234	1235	1236	1237	1238	1239	1240	1241	1242	1243	1244	1245	1246	1247	1248	1249	1250	1251	1252	1253	1254	1255	1256	1257	1258	1259	1260	1261	1262	1263	1264	1265	1266	1267	1268	1269	1270	1271	1272	1273	1274	1275	1276	1277	1278	1279	1280	1281	1282	1283	1284	1285	1286	1287	1288	1289	1290	1291	1292	1293	1294	1295	1296	1297	1298	1299	1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311	1312	1313	1314	1315	1316	1317	1318	1319	1320	1321	1322	1323	1324	1325	1326	1327	1328	1329	1330	1331	1332	1333	1334	1335	1336	1337	1338	1339	1340	1341	1342	1343	1344	1345	1346	1347	1348	1349	1350	1351	1352	1353	1354	1355	1356	1357	1358	1359	1360	1361	1362	1363	1364	1365	1366	1367	1368	1369	1370	1371	1372	1373	1374	1375	1376	1377	1378	1379	1380	1381	1382	1383	1384	1385	1386	1387	1388	1389	1390	1391	1392	1393	1394	1395	1396	1397	1398	1399	1400	1401	1402	1403	1404	1405	1406	1407	1408	1409	1410	1411	1412	1413	1414	1415	1416	1417	1418	1419	1420	1421	1422	1423	1424	1425	1426	1427	1428	1429	1430	1431	1432	1433	1434	1435	1436	1437	1438	1439	1440	1441	1442	1443	1444	1445	1446	1447	1448	1449	1450	1451	1452	1453	1454	1455	1456	1457

1) Sonnenscheindauer nicht direkt am Standort der Station registriert. *) vom Mittel 1931-1960 ** vom Mittel 1951-1960
Abkürzungen: WA = Wetteramt, Wewa = Wetterwarte, Wst = Wetterstation, AMBF = Agrarmeteorologische Beratungs- und
Forschungsstelle, BW = Bundeswehr, Kist = Klimastations, Nst = Niederschlagsstation

Table 2 ctd.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
20}	Brake (Unterweser)	5	12.8	-0.8	22.5	2.	4.7	24.	4.0	24.	83	6.2	96	160	21	17	3	.	.	.	7	2	15	99
21}	Buchholz (n. Nordh.)	77	11.5	-1.0	21.0	3.	3.5	24.	1.0	8.	89	6.1	112	20	17	2	.	.	.	5	.	16	.	.	.	.	.	86
	Feuchtwangen	6	12.4	-1.0	23.0	3.	1.9	24.	0.5	24.	87	5.8	94	152	19	15	2	.	.	8	.	12	.	.	.	.	.	88
	Feuchtwangen 1)	11	12.8	-1.0	23.0	3.	5.2	24.	4.0	24.29.	79	5.8	67	124	21	15	1	.	.	3	.	13	.	.	.	.	.	88
13--	Feuchtwangen 1)	5	12.6	-1.4	23.3	2.	2.6	24.	1.8	24.	85	6.2	103	163	23	15	2	.	.	6	.	13	.	.	.	.	.	88
	Feuchtwangen (Wannsee)	24	11.8	-1.6	22.0	2.	4.9	13.17.	3.1	29.	77	5.7	95	164	18	14	3	.	.	1	.	14	.	.	.	.	.	91
	Feuchtwangen (Wannsee)	8	12.5	-1.0	23.0	2.	3.6	24.	1.1	13.	87	6.6	115	185	21	17	4	.	.	7	.	18	.	.	.	.	.	96
	Feuchtwangen (Wst)	77	12.3	-1.0	23.1	2.	5.0	13.	2.7	13.	85	5.7	78	137	20	14	2	.	.	1	.	12	.	.	.	.	.	96
	Feuchtwangen	6	12.9	-0.8	23.8	2.	5.3	24.	1.5	24.	83	6.1	103	167	22	14	4	.	.	6	.	12	.	.	.	.	.	96
	Feuchtwangen	45	12.6	-0.9	23.3	3.	5.0	24.	4.0	24.	88	5.6	62	137	21	15	1	.	.	4	.	13	.	.	.	.	.	86
	Feuchtwangen (Wst)	17	12.6	-1.1	23.3	3.	4.0	24.	3.5	24.	85	6.3	62	138	21	15	.	.	.	6	.	16	.	.	.	.	.	97
	Feuchtwangen (Wst)	48	12.6	-1.1	23.3	3.	3.9	24.	1.9	24.	84	5.8	109	19	16	4	.	.	.	7	.	3	.	.	.	.	.	86
	Feuchtwangen (Wst)	53	12.6	-1.5	23.5	2.	3.0	17.	3.5	13.	86	6.5	138	22	15	4	.	.	.	7	.	3	.	.	.	.	.	86
6}	Feuchtwangen (Wst)	98	11.9	-1.5	22.7	2.	3.4	17.	2.3	17.	89	6.0	131	238	22	17	5	.	.	4	.	14	.	.	.	.	.	80
7}	Feuchtwangen (Wst)	36	13.0	-0.7	25.0	2.	6.0	6.17.	5.0	6.13.	83	6.0	131	196	22	17	4	.	.	4	.	14	.	.	.	.	.	80
8}	Feuchtwangen (Wst)	84	12.1	-1.0	24.0	3.	5.5	13.	2.5	13.	86	6.2	94	181	21	15	3	.	.	2	.	18	.	.	.	.	.	91
	Feuchtwangen (Wst)	26	13.0	-1.0	24.4	2.	6.1	6.	5.2	6.	84	6.1	142	206	21	15	4	.	.	4	.	16	.	.	.	.	.	82
	Feuchtwangen (Wst)	21	13.5	-0.6	24.7	2.	5.5	28.	3.8	28.	86	6.0	135	201	19	16	4	.	.	4	.	16	.	.	.	.	.	55
	Feuchtwangen (Wst)	48	12.8	-0.6	24.5	2.	4.8	28.	3.4	28.	83	5.9	93	172	21	13	3	.	.	5	.	14	.	.	.	.	.	107
	Feuchtwangen (Wst)	53	13.1	-0.7	24.0	2.	5.8	28.	5.2	28.	83	5.6	162	257	22	19	5	.	.	3	.	19	.	.	.	.	.	65
	Feuchtwangen (Wst)	24	13.1	-1.0	25.1	2.	5.8	13.	4.8	13.	83	5.6	75	144	21	11	3	.	.	2	.	11	.	.	.	.	.	92
	Feuchtwangen (Wst)	74	13.1	-1.0	24.0	3.	6.4	13.29.	3.0	28.	82	6.2	70	137	21	11	2	.	.	4	.	16	.	.	.	.	.	55
1C}	Feuchtwangen (Wst)	81	13.0	-1.0	23.2	3.	5.9	6.	2.7	6.	83	6.5	116	181	22	16	4	.	.	1	.	20	.	.	.	.	.	52
	Feuchtwangen (Wst)	95	12.9	-1.0	24.8	2.	6.2	24.	3.2	28.	92	6.2	129	190	22	16	3	.	.	20	.	1	.	.	.	.	.	81
	Feuchtwangen (Wst)	395	11.1	0.9	25.7	3.	6.9	25.	3.1	28.	82	6.6	73	155	17	14	3	.	.	2	.	19	.	.	.	.	.	78
	Feuchtwangen (Wst)	144	14.8	0.9	25.7	3.	6.9	25.	3.1	28.	82	6.6	73	155	17	14	3	.	.	2	.	19	.	.	.	.	.	84
	Feuchtwangen (Wst)	100	12.9	-0.9	24.0	2.	3.5	28.	2.3	28.	83	6.0	97	183	21	17	2	.	.	2	.	14	.	.	.	.	.	74
	Feuchtwangen (Wst)	64	13.4	24.7	2.1	3.	4.4	13.	-0.5	13.	83	5.6	82	155	18	14	3	.	.	3	.	14	.	.	.	.	.	62
	Feuchtwangen (Wst)	130	12.9	23.9	3.1	3.9	28.	3.9	28.	81	6.4	93	198	20	13	2	.	.	7	.	18	.	.	.	.	.	.	41
	Feuchtwangen (Wst)	260	12.2	-1.5	23.6	2.	6.0	28.	5.5	28.	80	6.1	117	205	21	14	2	.	.	12	.	1	.	.	.	.	.	83
	Feuchtwangen (Wst)	553	9.9	-1.8	19.7	3.	0.1	28.	0.1	28.	92	6.0	239	246	22	17	7	.	.	8	.	1	.	.	.	.	.	78
	Feuchtwangen (Wst)	504	10.3	20.0	3.	2.4	29.	2.4	29.	75	6.5	146	256	20	16	4	.	.	2	.	3	.	19	.	.	.	.	93
	Feuchtwangen (Wst)	128	13.1	-0.9	24.2	2.	4.4	29.	2.9	29.	79	6.8	114	215	19	17	4	.	.	5	.	20	.	.	.	.	.	84
	Feuchtwangen (Wst)	105	13.5	-0.3	24.9	2.	3.3	13.	3.3	13.	89	6.6	146	183	20	16	7	.	.	7	.	18	.	.	.	.	.	74
	Feuchtwangen (Wst)	300	11.3	19.5	3.1	1.5	28.	1.5	28.	90	6.5	212	204	21	17	8	.	.	10	.	19	.	.	.	.	.	.	62
	Feuchtwangen (Wst)	563	9.8	-1.8	19.5	3.	2.6	28.	2.6	28.	88	6.4	183	238	20	15	7	.	.	8	.	19	.	.	.	.	.	83
	Feuchtwangen (Wst)	495	10.1	20.1	3.	4.5	6.	4.5	6.	-1.1	28.	89	6.6	207	213	22	19	8	.	5	.	19	.	.	.	.	.	69
	Feuchtwangen (Wst)	440	10.8	-1.7	19.6	3.	3.8	28.	3.8	28.	87	6.2	139	190	20	15	6	.	.	3	.	15	.	.	.	.	.	77
	Feuchtwangen (Wst)	607	9.6	-1.7	19.6	3.	3.8	28.	3.8	28.	87	6.2	139	190	20	15	6	.	.	3	.	15	.	.	.	.	.	77
	Feuchtwangen (Wst)	317	11.3	22.1	2.1	2.2	5.5	29.	3.0	28.	82	6.7	108	230	21	15	3	.	.	2	.	1	.	.	.	.	.	49
	Feuchtwangen (Wst)	175	12.9	-0.7	24.4	1.	3.8	24.	2.0	24.	81	6.0	61	133	20	11	1	.	.	1	.	15	.	.	.	.	.	102
	Feuchtwangen (Wst)	51	12.8	-1.1	25.3	3.	3.8	24.	2.0	24.	81	6.0	61	133	20	11	1	.	.	1	.	15	.	.	.	.	.	53
22}	Nordheim-Westfalen	98	13.2	-0.9	25.0	2.	5.9	28.	4.4	13.	81	6.6	99	165	21	13	3	.	.	3	.	19	.	.	.	.	.	79
23}	Bad Salzuflen (Wst)	62	13.3	-0.9	25.1	2.	4.4	6.	4.6	28.	84	6.5	126	210	19	13	5	.	.	3	.	17	.	.	.	.	.	69
24}	Münster (Wst)	72	13.3	25.1	2.1	4.1	6.	4.1	6.	86	6.4	107	170	18	15	4	.	.	2	.	18	.	.	.	.	.	.	43
	Feuchtwangen (Wst)	21	13.1	-1.1	25.5	2.	4.1	6.	3.1	28.	87	6.5	140	200	21	16	6	.	.	9	.	17	.	.	.	.	.	68
	Feuchtwangen (Wst)	157	13.1	-1.0	24.9	2.	4.8	6.	3.1	28.	83	6.9	145	210	21	17	6	.	.	2	.	21	.	.	.	.	.	69
	Feuchtwangen (Wst)	45	13.4	-1.3	25.6	2.	7.0	24.29.	6.0	29.	87	6.7	160	239	23	17	6	.	.	4	.	21	.	.	.	.	.	51
	Feuchtwangen (Wst)	92	13.5	25.6	2.1	4.2	6.	4.2	6.	82	6.5	113	183	20	14	3	.	.	8	.	17	.	.	.	.	.	.	79
	Feuchtwangen (Wst)	240	12.4	-0.8	24.2	2.	4.6	29.	3.3	6.	85	7.0	118	227	22	15	5	.	.	2	.	21	.	.	.	.	.	71
	Feuchtwangen (Wst)	154	13.2	-1.4	24.8	2.	6.5	6.	6.5	6.	86	6.4	172	223	24	15	7	.	.	4	.	18	.	.	.	.	.	47
	Feuchtwangen (Wst)	100	13.3	25.3	2.1	5.6	6.	5.6	6.	65	6.5	150	217	25	17	5	.	.	1	.	1	.	.	.	.	.	.	70
	Feuchtwangen (Wst)	216	12.1	-0.8	23.8	2.	3.6	6.	3.6	6.	86	6.6	156	200	25	20	5	.	.	2	.	1	.	.	.	.	.	70

Table 2 ctd.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
Rheinland Pfalz																													
Thiengen	290	12.1	-1.4	24.8	2.	5.0	28.	3.6	28.	89	6.4	192	256	20	16	7	.	.	2	1	.	17	.	.	.	.	49	31
Bad Marienberg (Wst)	547	10.4	-1.6	22.3	1.	4.4	6.	0.9	6.	91	7.0	243	300	24	18	10	.	.	15	1	.	24	.	.	.	.	75	.
Bad Neuenahr Altweller	111	14.1	-0.3	29.0	2.	5.5	24.	4.5	24.	87	6.3	152	323	17	16	5	.	.	3	1	.	18	.	2	.	.	.	.
Newosed Wulkendorf	121	13.6	.	27.5	2.	6.6	22.	4.7	22.	84	6.4	153	264	20	17	4	.	.	2	1	.	20	.	2	.	.	.	.
Niedertshert	250	12.6	0.8	26.8	1.	5.0	28.	3.6	28.	85	6.5	198	283	19	16	5	.	.	4	1	.	21	.	2	.	.	70	.	
Konkz (Wst)	72	14.3	-0.8	27.0	1.	8.0	28.	5.1	23.	85	6.9	140	298	19	16	5	.	.	17	1	.	23	.	2	.	.	.	.
Nurburg (Wst)	627	10.3	-2.0	23.0	1.	4.2	24.	3.3	24.	90	6.9	191	324	22	18	6	.	.	2	1	.	15	.	2	.	.	.	.
Alzen	270	12.9	-1.2	27.1	1.	5.4	28.	3.6	24.	84	6.1	88	196	21	16	2	.	.	2	1	.	23	.	2	.	.	.	.
Bad Ims	77	13.9	-0.7	26.9	1.	7.9	25.	6.8	22.	88	6.8	182	331	19	16	2	.	.	14	2	.	23	.	2	.	.	.	.
Schmetelhofshaus	657	10.0	-1.6	23.7	2.	4.2	24.	3.0	24.	91	6.9	275	340	24	19	10	.	.	15	1	.	25	.	.	.	.	58	.
Wekenschen	530	10.6	-1.5	23.9	2.	5.0	24.	2.5	28.	89	7.4	189	274	23	16	9	.	.	15	1	.	25	.	.	.	.	67	.
Manderscheid Tufel	403	11.6	-1.3	26.2	2.	4.2	28.	2.4	28.	84	6.4	179	284	20	16	7	.	.	7	1	.	17	.	2	.	.	.	.
Blankenath	400	12.0	-1.1	25.5	2.	6.0	28.	3.6	28.	91	6.8	199	337	19	18	7	.	.	9	1	.	19	.	1	.	.	.	.
Sunnern-Wallbach	440	11.5	-1.6	25.2	2.	5.0	29.	2.5	28.	88	6.6	131	247	20	15	5	.	.	3	1	.	18	.	1	.	.	.	.
Blanz	125	13.9	-0.9	28.2	1.	6.4	28.	5.0	23.	78	6.3	89	198	20	16	1	.	.	4	1	.	20	.	2	.	.	54	38	
Bernkastel	120	14.0	-0.9	27.5	2.	7.1	28.	5.5	28.	75	6.9	129	235	21	15	4	.	.	4	1	.	22	.	2	.	.	83	38	
Bad Krennach	159	13.6	-1.1	28.8	2.	7.0	28.	5.4	28.	80	6.8	84	195	18	9	3	.	.	2	1	.	22	.	2	.	.	.	.
Bersheim	345	11.9	-0.7	27.0	2.	4.7	27.28.	3.2	24.	85	6.1	125	227	21	11	6	.	.	2	1	.	15	.	2	.	.	74	41	
Densbach (Wst)	480	11.5	-1.9	25.6	2.	5.1	24.	4.2	28.	86	6.8	156	236	22	18	6	.	.	2	1	.	23	.	1	.	.	61	.	
Trier Stadt	144	13.9	-0.8	28.0	2.	7.3	27.28.	6.0	24.	82	6.2	122	200	19	14	4	.	.	1	1	.	17	.	2	.	.	.	.
Trier Petrusberg (WA)	265	12.9	-1.5	28.0	2.	6.3	28.	5.8	26.	84	6.6	137	236	21	13	4	.	.	9	1	.	20	.	2	.	.	70	45	
Alzey	395	11.5	-1.1	26.4	2.	4.7	27.28.	2.8	28.	86	6.7	186	270	18	14	7	.	.	2	1	.	20	.	1	.	.	.	.
Birkenfeld Feckweiler	488	11.7	.	27.0	2.	5.2	24.	4.9	24.	84	6.3	142	268	21	13	6	.	.	3	1	.	18	.	2	.	.	80	52	
Ruppertschen	248	13.3	-1.3	28.8	2.	6.0	28.	4.0	28.	83	6.8	97	167	18	13	4	.	.	1	1	.	20	.	2	.	.	89	52	
Karlsbarm	553	11.3	-2.0	26.8	2.	4.8	24.	4.4	23.27.	87	6.5	75	13	11	2	.	.	18	1	.	1	16	.	2	.	.	90	.	
Neulach War (Heidehof)	125	14.2	-0.6	28.0	1.	5.8	28.29.	2.9	28.	79	6.2	53	13	11	2	.	.	1	1	.	1	16	.	2	.	.	.	.
Primosen	280	12.1	.	26.5	2.	4.5	29.	2.6	28.	88	6.1	136	186	21	13	5	.	.	4	1	.	2	17	.	2	.	.	100	
Bad Bergzabern I)	180	13.7	-1.2	28.0	2.	5.0	28.	5.0	28.	86	5.4	106	158	15	12	4	.	.	1	1	.	7	.	4	.	.	.	.
Baden-Württemberg																													
Wertheim Fichel	140	12.6	-1.4	26.2	1.	5.9	28.	5.5	25.	81	5.2	100	164	19	17	2	.	.	6	1	.	5	.	3	.	.	.	.
Lands Kongschoten (Gerlachshiem)	199	13.4	.	27.1	2.	3.9	28.	3.6	28.	81	6.1	81	153	20	16	3	.	.	5	1	.	16	.	4	.	.	92	51	
Manheim (Wewal)	96	14.2	-1.0	29.0	1.	6.4	23.	2.6	23.	81	6.2	99	174	19	14	4	.	.	3	1	.	16	.	4	.	.	88	50	
Baden Kr Neckar (Wst)	350	12.3	-0.8	26.0	1.	3.3	28.	2.6	28.	83	6.4	107	178	20	17	3	.	.	4	1	.	19	.	2	.	.	.	.
Bad Mergentheim-Neumarkten	250	12.8	-0.9	27.1	2.	4.4	28.	3.1	28.	83	6.0	96	185	21	15	3	.	.	4	1	.	2	16	.	4	.	.	.	
Fierbach Neckar	176	12.6	-1.2	26.7	2.	6.4	28.	4.8	23.	84	6.9	181	248	19	18	3	.	.	1	1	.	25	.	2	.	.	76	45	
Heidelberg I)	111	14.7	-1.1	28.4	1.	8.6	27.	8.4	26.	78	6.1	120	185	19	16	4	.	.	7	1	.	2	18	.	3	.	.	.	
Neudenau	210	13.3	-1.3	28.7	2.	6.2	28.	5.5	28.	87	5.7	143	231	19	16	4	.	.	7	1	.	12	.	4	.	.	.	.
Ingeltingen	209	13.2	-0.5	28.7	2.	5.4	28.	4.6	28.	81	6.3	109	163	19	14	2	.	.	4	1	.	16	.	3	.	.	.	.
Philippshurg	100	14.5	-0.6	28.0	1.	6.5	27.	4.6	27.	79	6.5	78	113	18	15	2	.	.	1	2	.	19	.	4	.	.	101	55	
Ohrenburg (Wst)	276	12.9	-1.4	26.5	2.	7.0	26.	4.6	19.	85	6.3	164	241	19	16	5	.	.	1	2	.	19	.	3	.	.	.	.
Heilbronn	167	13.7	-1.4	27.7	2.	7.4	28.	6.2	27.	88	6.2	103	166	17	15	2	.	.	1	1	.	17	.	3	.	.	.	.
Fippenen	210	13.5	-0.6	27.3	2.	6.1	27.	4.0	27.	85	6.0	132	210	20	16	5	.	.	5	2	.	15	.	3	.	.	.	.
Carlsheim	418	12.0	-1.1	26.5	4.	3.9	28.	3.1	28.	81	6.1	133	208	19	16	4	.	.	2	2	.	15	.	3	.	.	.	.
Schwabach Hall Feuershof	379	12.5	.	26.0	2.	5.7	28.	3.7	28.	85	6.4	153	19	16	6	.	.	6	3	.	18	.	2	.	.	.	109	57	
Karlsbach (Wst)	112	14.4	-0.6	30.0	2.	6.5	27.	3.4	27.	82	6.3	120	182	18	13	4	.	.	3	3	.	19	.	1	.	.	103	57	
Forstheim Kr Karlsruhe	116	14.5	-0.5	28.6	2.	7.1	28.	5.9	24.	88	6.9	158	226	17	15	6	.	.	12	.	.	22	.	5	.	.	.	.
Morbach	344	12.1	-1.1	25.5	4.	5.2	27.	4.8	27.	85	5.8	160	195	18	18	8	.	.	4	2	.	14	.	2	.	.	115	66	
Ellwangen Jagst	443	12.1	-0.7	26.6	4.	5.9	28.	3.4	26.	82	6.3	96	141	19	16	2	.	.	2	.	.	16	.	3	.	.	.	.
Goschwind Kr Ostalb	492	11.6	-1.3	25.9	2.	4.4	27.	3.0	27.	83	6.0	151	180	19	17	7	.	.	7	2	.	19	.	2	.	.	.	.
Pforzheim	245	13.4	-0.2	28.9	2.	4.2	27.	2.0	27.	82	6.0	92	130	19	16	4	.	.	1	1	.	2	16	.	4	.	.	105	.

Table 2 ctd.

Station	Höhe über NN in m	Lufttemperatur in °C					Luftfeuchtigkeit in %					Windrichtung und -geschwindigkeit					Niederschlag					Wetter					Sonnen- stunden				
		Mittel		Abweichung		höchste	Datum	tiefe	Datum	tiefe	Datum	Luftfeuchtigkeit	Windrichtung	Windgeschwindigkeit	Windrichtung	Windgeschwindigkeit	Luftfeuchtigkeit	Windrichtung	Windgeschwindigkeit	Luftfeuchtigkeit	Windrichtung	Windgeschwindigkeit	Luftfeuchtigkeit	Windrichtung	Windgeschwindigkeit	Luftfeuchtigkeit	Windrichtung	Windgeschwindigkeit			
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29			
Stuttgart (Neumarktberg)	314	13.6	-1.2	27.3	2	6.3	27	2.6	27	78	6.2	62	100	18	12	1			4	1	19							117			
Bad Herrenalb	351	12.4	-0.7	27.2	2	5.4	26	3.0	28	85	6.6	106	166	21	16	10			13	2	19							73			
Dabiel	717	11.0	-1.8	23.5	2	4.0	24	3.0	27	86	6.4	217	195	21	18	10			4		19							93			
Schönberg, Kr. Calw	633	11.0	-1.7	25.5	2	3.5	24	2.5	27	86	6.3	158	184	20	16	8			5	1	20							101			
Schönberg, Gmund-Sträßdorf	415	12.7	-1.2	27.0	2	6.2	27	4.9	27	82	5.9	102	123	18	16	3			3	1	3	17						55			
Wildbad (Stadt)	417	12.0	-1.0	26.9	2	4.6	28	2.0	28	85	5.8	177	174	20	17	7			1	1	4	19									
Stuttgart (Wald)	216	13.7	-1.0	28.4	2	6.4	28	5.8	28	84	6.0	199	197	20	18	8			7	1	3	16						110			
Baden-Baden	740	10.9	-2.0	26.8	2	3.0	24	1.5	27	84	6.4	205	193	21	17	8			10		18										
Wildbad-Sommerberg	190	14.3	-1.3	29.4	2	7.5	28	4.8	28	73	6.0	226	202	18	17	9			1		2	18						88			
Rehlfeld	131	13.7	-0.8	29.2	2	6.3	28	5.5	28	86	6.2	186		19	17	8			3	1	2	18						93			
Freistett (Marwald)	606	10.8	-1.8	25.9	2	3.0	28	0.5	28	80	6.1	211	197	20	18	10			7	1	2	18						114			
Enz (Klosterle 1)	734	10.8	-1.8	25.9	2	3.2	27	1.9	27	85	6.1	133	148	19	18	4			15	1	17							66			
Stetten (Wst)	500	11.2	-1.6	25.7	2	2.0	27	1.2	27	87	6.2	109	154	21	17	3			7	1	17							101			
Hedenheim/Brenz	280	12.1	-1.8	29.0	2	3.0	28	2.5	28	77	6.0	87		19	14	3			4	1	18							86			
Nürtingen/Hebersingen	1122	8.0	-2.2	23.1	2	0.5	24	2.0	24	95	6.9	338	207	21	20	13			24	2	1	24						74			
Hornsgut	392	12.1	-1.3	28.0	2	5.0	25	3.0	25	87	5.4	126	183	19	17	3			2	2	5	17									
Naila	392	12.1	-1.3	28.0	2	5.0	25	3.0	25	87	5.4	126	183	19	17	3			2	2	5	17									
Lenningen-Schöplösch	758	10.9	-1.7	28.2	2	4.0	24	3.0	24	81	6.4	115	128	19	17	2			6	1	3	16						133			
Leichlingen	747	10.9	-1.1	28.2	2	3.6	27	1.8	27	80	5.7	112	153	22	18	2			2		21							121			
Rehlfeld	342	13.0		29.2	2	5.7	29	3.5	29	78	6.4	59		16	12	1			2		21										
Rottenburg	155	14.3	-0.8	29.8	2	7.9	28	3.5	28	83	6.4	155	176	21	18	5			1	1	2	19						115			
Offenburg	797	10.1	-1.8	29.4	2	3.0	24	2.5	28	87	6.3	241	208	21	18	8			5	3	3	19						66			
Freudenstadt (Wst)	185	13.8	-1.3	29.6	2	8.1	22	6.2	28	85	6.2	152	154	20	19	5			3	3	2	19									
Gengenbach	721	10.6	-1.2	25.6	2	2.9	27	1.8	27	80	6.1	122	156	20	16	3			7	1	2	18									
Manningen	520	12.2	-1.3	28.4	2	4.6	25	3.4	25	79	5.7	88	106	17	14	2			4	2	16							130			
Hechingen	522	12.0	-1.0	27.4	2	4.7	27	3.7	27	82	5.8	100	147	19	13	4			5	2	16							75			
Ulm (Wst)	158	14.6	-0.7	30.2	2	6.9	28	4.1	28	79	6.3	117	144	18	17	3			3	2	4	19						103			
Lahr/Schw.	265	13.3	-1.1	29.2	2	7.8	26, 27	7.0	27	82	6.5	207	201	20	18	7			13	2	2	21						96			
Wollach	712	10.7		28.0	2	3.3	27	0.4	25	77	5.6	108	130	18	13	3			7	1	4	17						99			
Abstatt-Ehingen	442	12.8		28.9	2	6.6	25	6.1	22	84	5.9	162	169	18	16	8			9	3	4	17									
Ottoschwanden																															
Wellendingen																															
Emmendingen-Mundingen	201	13.5		30.0	2	5.5	28	3.9	28	63	6.2	149	177	18	16	8			1	2	4	19						110			
Schönach	904	9.8		23.0	2	3.4	24	1.0	25	88	6.1	274		20	18	11			3	4	18										
Triberg	683	10.6	-1.8	24.6	2	4.2	25	1.0	25	87	6.1	246	208	20	18	10			2	4	20							83			
Triberg (Kurpark)	700	11.0		25.4	2	4.0	24, 25			83	5.6	228		13	17	10			1	7	17							110			
Königsfeld/Schw.	767	10.5	-1.4	28.5	2	2.0	25			86	5.9	104	116	19	15	2			4	1	3	16						99			
Biberach/Riß	534	12.4	-0.7	28.9	2	5.8	27	4.5	7, 25	82	5.8	154	208	17	16	7			8	1	4	16						122			
Schönwald/Schw.	1005	9.3		23.7	2	2.0	24			85	6.0	277		22	17	12			13	1	2	18						112			
Kloppeneck/Schw.	973	9.3	-1.1	23.3	2	2.4	24	1.9	25	88	5.9	112	144	19	14	3			1	3	18							84			
Oberotter (1)	423	14.2	-0.7	30.2	2	5.9	28	4.0	28	80	5.6	109	151	18	14	5			3	2	3	19									
Seematingen	650	11.3	-1.5	28.4	2	2.5	25	-0.6	27	81	6.0	91	126	19	14	2			9	4	16							111			
Lienetal bei Hittingen	284	12.9	-1.3	29.0	2	6.4	28	5.0	28	86	5.8	126	150	17	16	6			2	4	18							104			
Villingen	698	10.7	-1.1	27.3	2	2.4	25	-0.5	25	84	6.2	104	141	17	17	3			2	4	19										
Freiburg i. Br.-Herdern	255	14.4	-1.2	30.2	2	6.7	28	4.0	28	77	6.1	163	172	19	15	3			4	1	4	19						111			
Freiburg i. Br.-Herdern	718	10.8	-1.0	28.0	2	3.0	25	6.5	26	75	6.1	166	193	18	16	6			2	2	3	19						104			
Freiburg i. Br. (Wst)	269	14.7	-0.9	30.6	2	7.5	28			86	6.1	233		22	19	11			15	4	19										
Sankt Margen	900	10.7	-2.4	24.5	2	3.0	24, 26	6.8	29	81	6.1	116	163	19	16	4			1	2	21							120			
Mengen i. Br.	215	14.5	-0.4	31.0	2	7.4	29	3.2	29	86	6.3	185	234	18	17	7			7	1	2	21						70			
Aulendorf	571	11.9	-1.1	26.1	2	4.4	29	3.2	29	86	6.3	185	234	18	17	7			8	2	4	19						117			
Donauwuechingen (1)	677	11.0	-1.3	25.9	2	3.0	25	-0.3	25	85	6.1	118	176	19	15	3			7	1	3	20						107			
Neustadt Schw. (1)	835	9.6	-1.7	24.2	2	2.4	29	0.6	25	86	6.1	173	170	21	19	7															

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Friedenweiler	924	9.9	9.9	25.6	2.		2.8 25.			83 5.5	153	18	5		1					1								108
Pfukendorf	668	11.5	-1.3	25.8	2.		5.0 7.26.	3.8 7.		82 5.0	170 205	19	16	6						7	1	3	11					104
Bemgarten (HW)	212	14.4		30.7	2.		6.8 29.	5.3 29.		75 5.8	105 150	18	16	4						5	2	15	1	4				104
Hietzarten	883	9.3	-2.0	24.6	2.		1.5 28.			87 5.9	209 205	19	19	7						5	4	17						91
Tibsee	860	9.7		28.7	2.		2.5 7.			85 6.3	184 177	20	17	5						4	1	19						84
Göhrnmußtertal	545	12.3		28.2	2.		5.7 7.			80 6.2	227 216	19	18	9						2	1	4	21	2				85
Lehlberg Sch. (Wst)	1486	6.1	-2.3	18.7	3.		-1.0 24.			93 6.7	285 194	22	21	14						5	26	2	24	1				85
Lehrkirch	818	10.1	-1.3	28.2	2.		2.3 7.			86 5.7	181 193	18	17	6						7	1	4	17					108
Aach Kr Konstanz	478	12.1	-1.4	29.0	2.		4.0 7.	1.8 7.		83 6.2	113 155	18	14	4						5	2	3	19	4				69
Stöckach	475	12.0		26.5	2.		4.5 7.	4.1 7.		85 5.9	150 183	20	14	7						14	1	3	16	3				
Meinenschwand	885	9.7	-1.2	24.9	2.		0.3 13.			82 6.1	313 227	22	19	10							2	21						120
Schluchsee	983	9.4	-1.5	28.1	2.		2.0 24.			88 5.7	228 205	21	19	8						4	1	5	17	1				92
Badenweiler	412	13.7	-1.1	29.2	2.		6.9 24.			78 6.0	151 154	19	17	7						4	1	3	17	4				
Friedrichsheim	852	10.1	-2.3	24.7	2.		3.5 24.			89 6.2	275 188	20	19	11						11		3	20					
Ravensburg I.	785	12.8	-1.1	27.6	2.		5.8 28.			81 5.9	247 271	19	16	9						6	4	2	18					126
Sankt Blasien I.	435	10.5	-0.7	28.1	2.		3.3 7.	3.0 7.		88 5.7	260 228	20	19	10						9	1	3	16					101
Hochenschwand	1008	9.5	-2.2	23.7	2.		2.1 24.	0.5 7.		86 5.8	236 209	19	17	8						20	1	3	18	4				112
Radolzell	400	13.3	-1.5	28.2	2.		6.4 7.	4.3 7.		83 5.9	144 209	18	16	6						4	2	17						122
Konstanz (Wewa)	443	13.0	-1.3	27.2	1.		2.2 28.	1.2 28.		85 6.2	165 204	24	14	5						2	3	4	17					120
Isny I.	691	10.9	-1.6	24.4	2.		6.0 8.	5.5 7.8.		84 5.9	354 228	21	18	11						2	1	2	18					
Wutöschingen	383	12.9	-0.9	29.0	2.		6.2 7.28.	5.4 28.	</																			

Table 2 ctd.

Station	Höhe über NN m	Lufttemperatur in °C					Luftfeuchtigkeit in %					Windrichtung					Zahl der Tage					Sonnen- schein- dauer in %																																																																																																																																																																																																																																																																																																																																																																																																																																														
		Mittel	Abweichung	höchste	Datum	tiefe	Datum	tiefe am Erdboden	Datum	Luftfeuchtigkeit	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung		Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung	Windrichtung

30

29

31
32

Table 2 ctd. (air temperature in °C)

September 1984

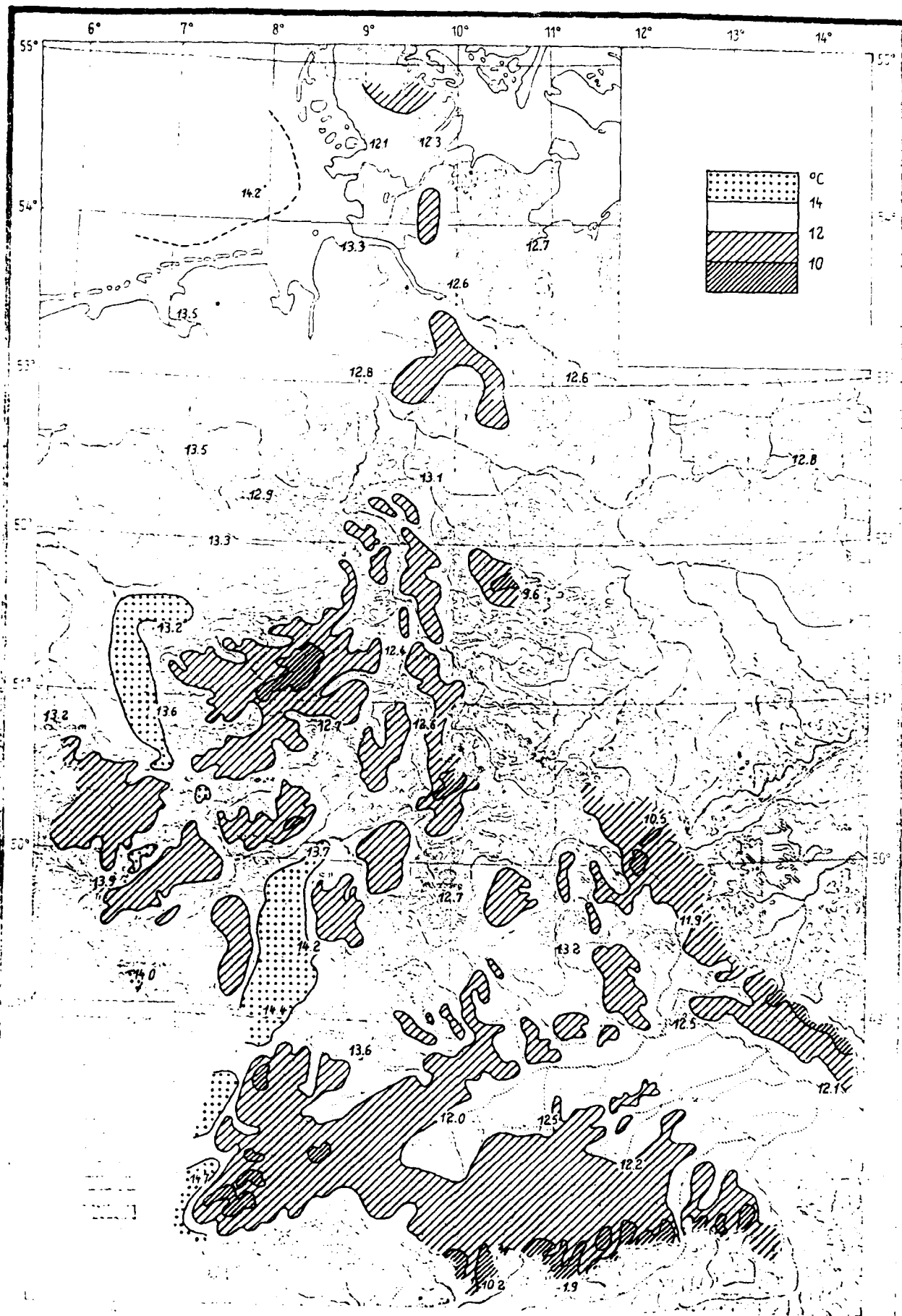


Table 2 ctd. (precipitation in mm)

September 1984

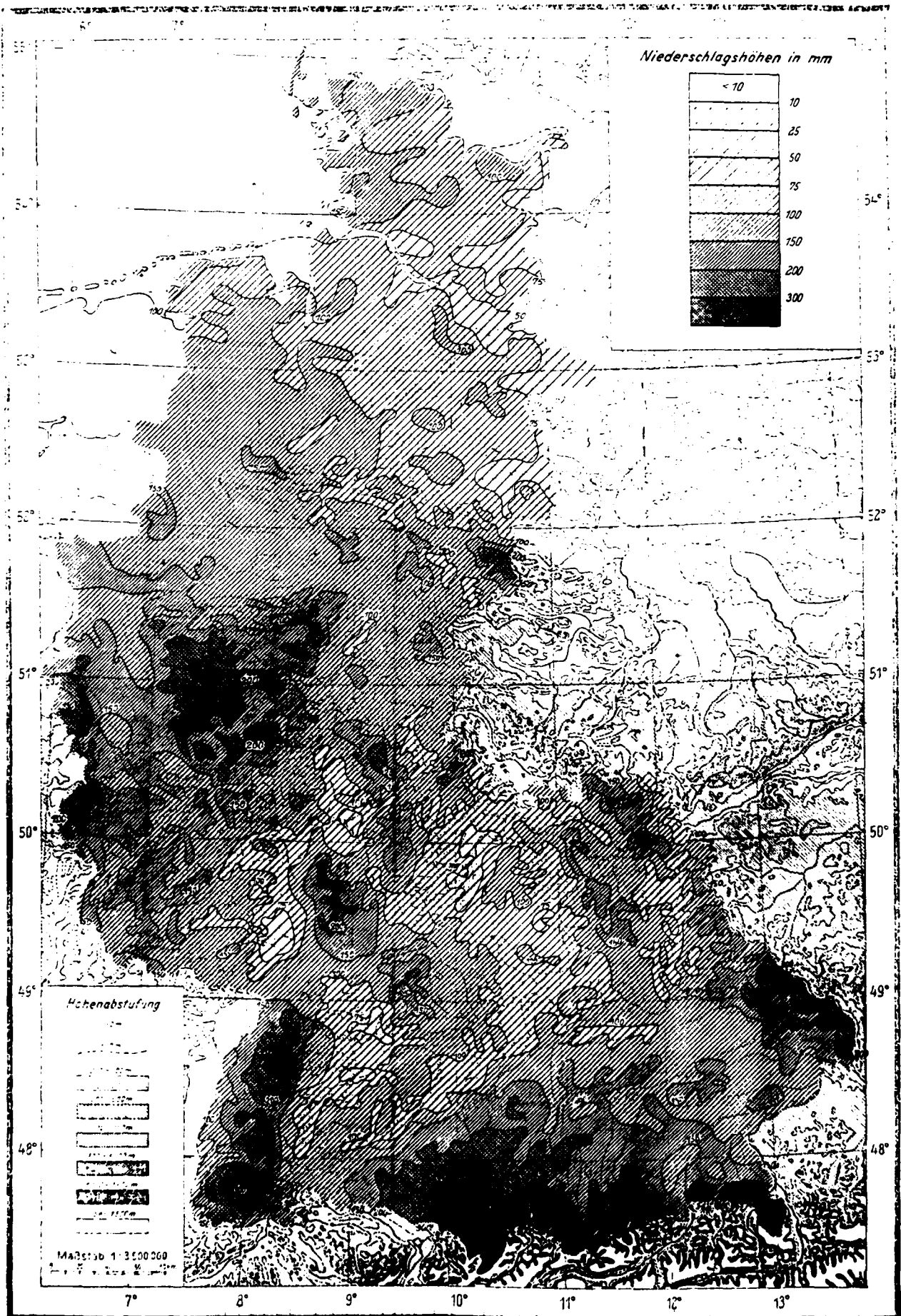


Table 2 ctd. (precipitation in % of 1931 - 1960 mean values)

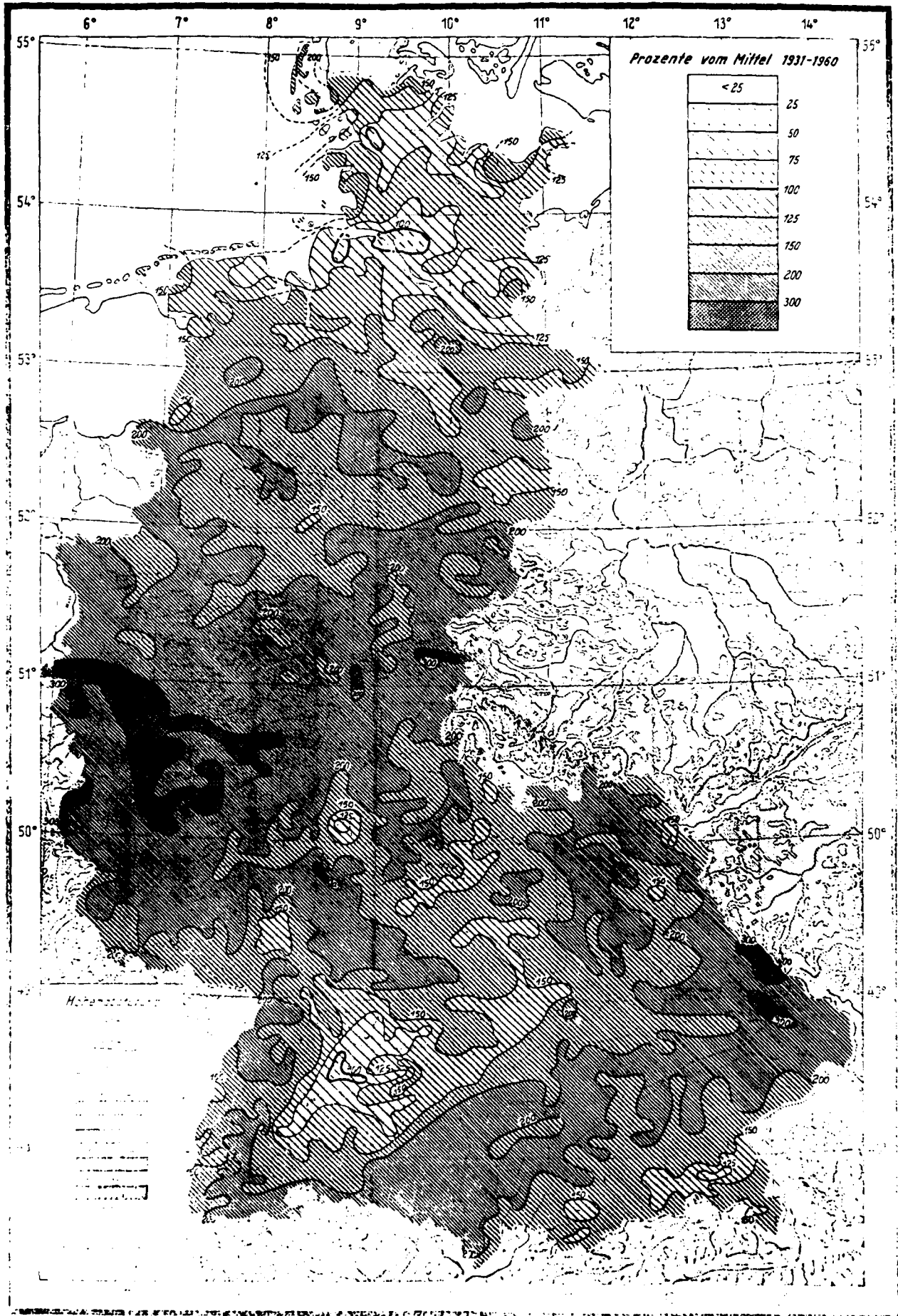


Table 2 ctd. (air temperature in % of 1931 - 1960 mean values)

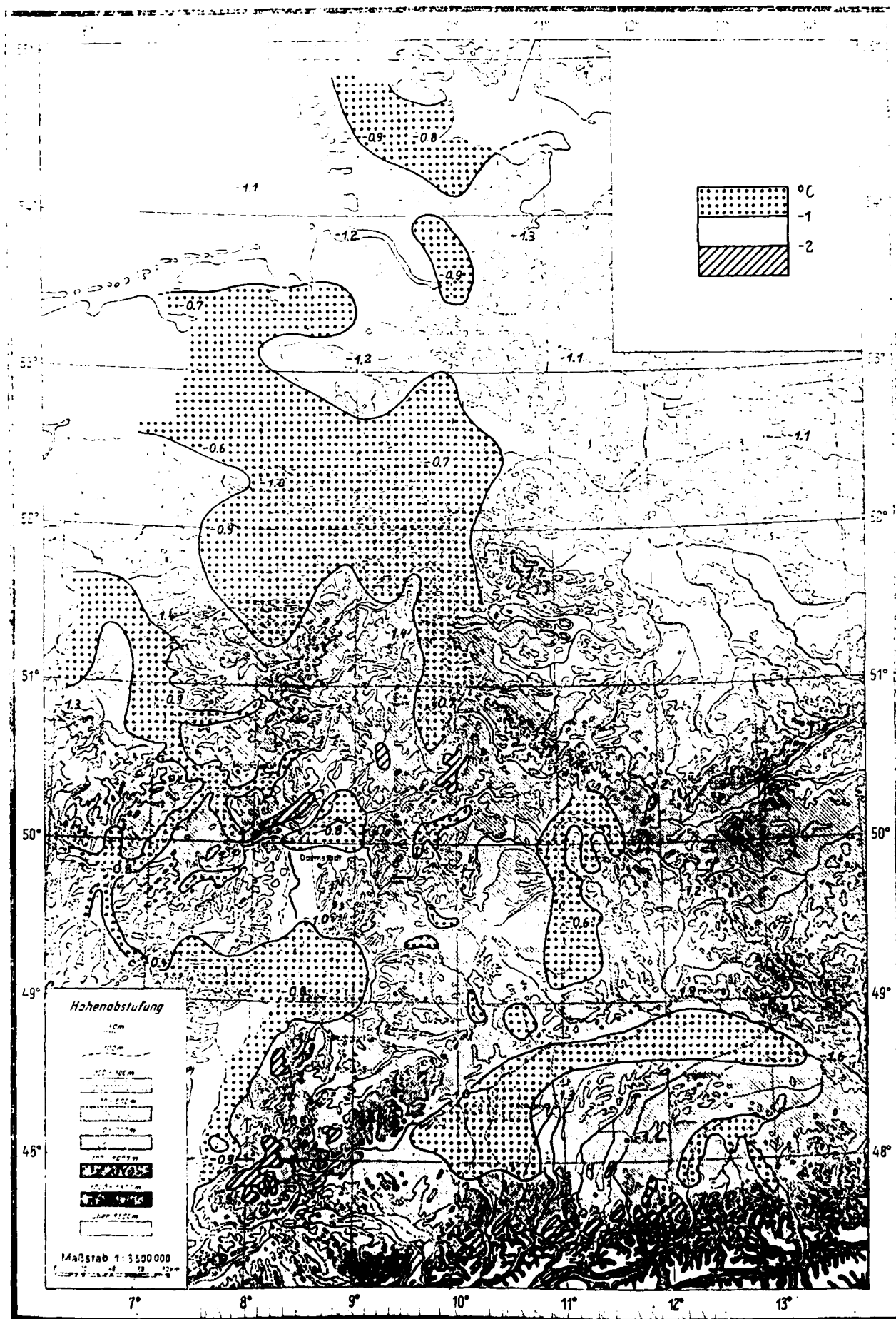


Table 3 Meteorological/Climatological Data for the Areas of Investigation (October 1984)

Oktober 1984

Monatswerte

Station	Höhe über NN m	Lufttemperatur in °C					Luftfeuchtigkeit %	Windrichtung °	Windgeschwindigkeit m/s					Niederschlag mm					Schnee fall (decim) mm					Zahl der Tage					Sonnen- schein- dauer in Std					
		Mittel							0-10					0-10					0-10					0-10					0-10					
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29					
Schleswig-Holstein																																		
Leck auf See (Wst)	26	11.9	1.9	1.9	15.0	10.	7.6	27.	5.3	16.	84	5.8	114	150	24	17	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	83	78
Leck (Wst)	7	10.9	2.1	15.9	4.	3.5	16.	0.8	28.	0.8	28.	90	5.4	158	25	18	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	72	78
Flensburg (Schäferhaus)	41	10.6	1.9	16.0	30.	2.7	28.	0.8	28.	0.8	28.	90	6.1	141	178	21	17	6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	68	69
Wyk-Föhr	1	11.5	1.6	16.2	11.	5.9	15.	-1.1	28.	-1.1	28.	86	6.1	124	165	24	16	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	75	75
Stoltebüll I)	28	10.6	1.6	16.8	30.	3.0	28.	-2.4	28.	-2.4	28.	87	5.8	144	206	21	17	6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	87	86
Schleswig (Wst)	43	10.9	2.1	17.0	30.	3.2	28.	2.0	28.	2.0	28.	87	6.3	135	163	26	17	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	102	102
Westermarsdorf-Feldmarn I)	28	10.7	2.0	17.0	30.	2.0	28.	-0.2	28.	-0.2	28.	90	5.9	134	163	24	17	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	98	93
Schwesing (Wst)	17	10.9	1.8	17.7	30.	2.2	28.	1.0	28.	1.0	28.	87	5.6	107	155	24	15	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	100	100
Kiel-Kronshagen (Wst)	10	11.1	1.7	17.2	30.	2.5	28.	1.0	28.	1.0	28.	88	4.9	85	144	25	15	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	78	78
Holtenau	18	11.1	2.3	17.4	30.	2.7	28.	1.3	28.	1.3	28.	87	5.8	122	144	22	16	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	84	84
Sankt Peter-Ording	4	11.7	1.9	16.5	4.	5.0	16.	1.0	16.	1.0	16.	85	6.2	147	179	21	18	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	100	100
Rendsburg	8	10.8	2.1	17.4	30.	0.8	28.	-2.4	28.	-2.4	28.	86	6.2	111	144	22	17	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	78	78
Lensahn	14	11.0	2.0	17.5	30.	2.0	28.	-2.5	28.	-2.5	28.	87	5.4	98	161	21	16	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	84	84
Holtenau	12	11.2	2.2	17.5	4.	2.3	28.	1.0	28.	1.0	28.	85	5.8	130	155	19	18	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	100	100
Helgoland (Wst)	4	12.9	1.7	15.7	9.	8.2	30.	5.9	16.	5.9	16.	84	6.0	99	121	21	14	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	84	84
Phön (See I)	24	11.0	1.6	16.5	30.	3.9	28.	2.0	28.	2.0	28.	88	5.4	92	146	27	17	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	100	100
Eutin	50	10.8	2.0	17.2	30.	1.7	28.	-0.7	28.	-0.7	28.	85	5.5	103	158	25	18	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	115	115
Hohenwestedt	80	10.5	1.7	16.5	30.	2.2	28.	0.0	28.	0.0	28.	87	5.9	144	182	23	16	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	102	98
Neumünster	21	10.9	2.1	17.5	30.	3.9	28.	-2.5	28.	-2.5	28.	85	5.3	134	189	23	19	6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	97	97
Holtenau (Wst)	4	12.9	1.7	15.7	9.	8.2	30.	5.9	16.	5.9	16.	84	5.1	124	163	23	18	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	94	94
Phön (See I)	9	11.0	1.5	16.5	30.	2.1	28.	2.0	28.	2.0	28.	85	5.0	72	147	19	16	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	100	100
Wahlstedt	45	10.8	2.0	18.0	30.	1.3	28.	-1.8	28.	-1.8	28.	87	6.2	121	166	27	20	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	115	115
Luiseck (Wst)	8	11.3	1.8	17.7	3.	2.0	28.	0.7	28.	0.7	28.	80	5.7	76	129	24	14	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	102	98
Brandenburger-Kirchen I)	9	10.8	2.2	18.0	30.	0.6	28.	-1.4	28.	-1.4	28.	88	5.9	107	163	20	19	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	95	95
Glückstadt I)	2	11.2	1.8	17.6	30.	4.4	28.	3.0	28.	3.0	28.	82	5.8	104	163	26	18	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	97	97
Quicksborn (EMC), Kr. Pinneberg	13	11.0	2.1	17.8	30.	-0.5	28.	-3.0	28.	-3.0	28.	86	5.6	111	172	23	17	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	94	94
Ahlensburg-Wulfsdorf (AMBF)	46	10.7	2.0	17.2	30.	1.8	28.	-1.7	28.	-1.7	28.	90	5.6	110	172	23	19	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	106	102
Mölin I)	27	10.6	1.8	17.4	10.	-1.1	28.	-2.5	28.	-2.5	28.	87	5.5	85	133	22	16	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	104	103
Hamburg-Fuhlsbüttel (Flugh.)	13	11.1	2.0	17.9	30.	1.5	28.	-3.1	28.	-3.1	28.	86	5.3	116	197	23	15	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	108	108
Bremerhaven (Wewa)	7	11.4	1.7	17.9	30.	3.4	28.	1.4	28.	1.4	28.	88	5.7	76	121	21	14	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	99	99
Bremen (Flugh.)	4	10.7	1.8	18.7	30.	-0.5	28.	-2.6	28.	-2.6	28.	87	5.3	90	155	19	18	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	106	102
Niedersachsen																																		
Cuxhaven (Wst)	5	11.5	1.5	17.8	30.	3.0	28.	0.5	28.	0.5	28.	87	6.0	109	149	21	16	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	104	103
Wangerooze	3	11.6	1.2	17.1	30.	4.1	28.	2.8	28.	2.8	28.	89	5.8	93	121	19	17	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	93	89
Langenooze	5	11.7	1.3	16.8	30.	3.2	28.	2.0	28.	2.0	28.	86	6.1	95	119	22	15	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	93	89
Norderney (Wst)	11	12.0	1.4	16.0	30.	4.4	28.	3.2	28.	3.2	28.	86	5.8	77	99	22	14	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	93	89
Breitelkes	27	10.7	1.5	18.0	30.	2.2	28.	0.4	28.	0.4	28.	88	5.5	107	157	22	15	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	92	92
Wilhelmshaven	1	11.2	1.6	18.4	30.	1.6	28.	-1.4	28.	-1.4	28.	87	5.1	103	151	17	14	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	110	110
Jever (BW)	7	11.0	1.6	18.1	30.	0.3	28.	-1.4	28.	-1.4	28.	84	5.3	93	124	24	12	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	92	92
Jork	1	10.5	1.8	17.5	30.	-1.3	28.	-1.7	28.	-1.7	28.	87	5.4	87	150	21	17	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	110	110
Bremervörde	5	10.6	1.7	17.6	30.	0.6	28.	-0.5	28.	-0.5	28.	85	5.3	100	149	20	18	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	43	43
Bremerhaven	4	10.6	1.4	18.0	30.	0.6	28.	-2.5	28.	-2.5	28.	90	5.6	105	138	20	13	6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	92	92
Emden-Neserland (Wst)	5	11.6	1.8	16.7	30.	4.1	28.	2.5	28.	2.5	28.	85	5.9	92	133	22	12	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	92	92

1) Sonnenscheindauer nicht direkt am Standort der Station registriert. *) vom Mittel 1931-1960. **) vom Mittel 1951-1960
Abkürzungen: Wst = Wetteraufst. Wewa = Wetteraufst. AMBF = Agrarmeteorologische Beratungs- und
Forschungsstelle. BW = Bundeswehr. Khd = Kilmalstation. Nst = Niederschlagsstation

Table 3 ctd.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Bake (Unterweser)	5	11.1	1.9	18.2	30.	3.2	28.	2.0	28.	88	6.1	101	166	19	17	2	1	1	1	7	2	17	1	1	1	1	1	100	
Buchholz (n.d. Nordheide)	77	10.1	1.7	16.9	30.	-0.7	28.	-2.5	27.	91	5.6	90	122	21	19	1	1	1	1	3	1	2	11	1	1	1	1	94	
Leuchthaus	6	10.5	1.7	16.9	30.	-2.1	28.	-3.5	28.	86	6.1	77	122	19	15	1	1	1	1	3	1	1	14	1	1	1	1	111	
Leuchthaus	11	11.3	2.1	17.6	1.	-0.1	28.	-1.9	28.	81	5.3	62	124	23	14	1	1	1	1	4	2	1	13	1	1	1	1	99	
Oldenburg (I)	5	10.9	1.4	19.2	30.	0.0	28.	-2.5	28.	77	5.3	83	138	20	18	1	1	1	1	4	2	11	1	1	1	1	1	86	
Oldenburg (Wunmet)	24	10.1	1.2	17.9	30.	-0.4	28.	-1.2	28.	87	5.3	87	132	19	16	1	1	1	1	5	2	13	1	1	1	1	1	108	106
Freysing (Wunmet)	8	10.9	1.8	18.1	30.	0.3	28.	-1.7	28.	87	5.3	96	157	20	18	2	1	1	1	5	2	13	1	1	1	1	1	108	106
Freysing (Wunmet)	77	10.5	1.7	18.2	30.	-1.5	28.	-3.0	28.	84	5.5	110	110	21	17	3	1	1	1	5	2	13	1	1	1	1	1	103	
Sollau (W-F)	6	11.0	1.6	19.3	30.	-2.4	28.	-3.7	28.	80	5.0	55	110	20	15	1	1	1	1	4	2	13	1	1	1	1	1	112	104
Dapen	45	10.9	2.1	18.3	25.	-2.0	28.	-3.0	28.	86	5.9	44	96	21	12	1	1	1	1	5	2	13	1	1	1	1	1	104	
Leiden	17	11.0	2.2	18.0	1.	-0.6	28.	-1.9	28.	85	5.4	100	23	17	2	1	1	1	1	5	2	13	1	1	1	1	1	112	104
Leiden (W-F)	48	10.8	1.8	18.6	30.	0.7	28.	-2.8	28.	87	5.7	67	22	16	1	1	1	1	1	5	2	13	1	1	1	1	1	104	
Reinisch (Wunmet)	53	10.9	1.7	17.9	30.	2.5	28.	-1.0	28.	88	5.6	78	134	21	15	2	1	1	1	5	2	13	1	1	1	1	1	86	
Reinisch (Wunmet)	98	10.3	1.6	17.0	17.	-1.4	28.	-2.0	28.	88	5.6	126	200	23	18	5	1	1	1	3	1	1	15	1	1	1	1	86	
Leiden	34	11.1	1.8	20.0	30.	1.5	28.	-1.0	28.	87	5.4	73	135	23	15	2	1	1	1	3	1	1	10	1	1	1	1	93	
Leiden	84	10.3	1.8	17.0	17.	0.0	28.	-3.9	28.	86	5.5	87	161	21	17	2	1	1	1	3	1	1	13	1	1	1	1	90	92
Leiden	26	10.8	1.4	19.2	30.	-0.4	28.	-1.3	28.	84	5.5	107	165	20	16	4	1	1	1	4	2	2	11	1	1	1	1	107	101
Leiden	21	11.4	1.6	18.7	30.	2.6	28.	-2.0	28.	85	5.8	108	171	18	15	2	1	1	1	7	1	1	11	1	1	1	1	98	86
Leiden	48	11.0	2.0	19.0	30.	1.3	28.	-1.5	28.	85	5.8	108	171	18	15	2	1	1	1	7	1	1	11	1	1	1	1	92	90
Leiden	53	11.2	2.1	18.1	17.	0.5	28.	-1.9	28.	83	5.8	104	168	19	14	5	1	1	1	3	1	1	14	1	1	1	1	107	101
Leiden	24	11.3	1.6	19.5	30.	1.5	28.	-1.8	28.	87	5.7	57	100	22	15	1	1	1	1	4	1	1	14	1	1	1	1	98	86
Leiden	74	11.0	1.8	18.1	1.	1.5	28.	-0.6	28.	85	5.6	66	120	21	15	1	1	1	1	4	1	1	14	1	1	1	1	92	90
Leiden	81	11.3	2.1	19.1	1.	2.0	28.	-0.6	28.	83	5.6	116	187	22	17	4	1	1	1	4	1	1	13	1	1	1	1	92	90
Leiden	95	11.1	1.7	19.6	30.	0.6	28.	-2.8	28.	92	5.7	99	130	21	16	3	1	1	1	14	1	1	13	1	1	1	1	98	86
Leiden	395	9.1	1.7	19.6	1.	2.2	22.	-0.7	28.	82	5.6	46	82	15	10	2	1	1	1	4	2	2	13	1	1	1	1	92	90
Leiden	144	10.7	1.7	19.6	1.	-0.5	28.	-0.9	28.	84	5.4	77	131	19	16	2	1	1	1	5	2	13	1	1	1	1	1	75	
Leiden	100	11.1	1.9	17.9	1.30.	-0.5	28.	-2.6	28.	85	5.3	71	120	19	13	1	1	1	1	5	2	13	1	1	1	1	1	87	
Leiden	64	11.5	1.8	18.4	1.17.	1.6	28.	-1.0	28.	85	5.3	69	121	19	15	2	1	1	1	4	1	1	12	1	1	1	1	86	
Leiden	130	11.3	1.9	17.7	1.	-0.6	28.	-2.6	28.	81	5.5	69	121	19	15	2	1	1	1	1	1	1	10	1	1	1	1	75	
Leiden	260	11.0	2.1	20.7	1.	0.5	28.	0.0	28.	78	5.1	66	90	20	13	1	1	1	1	1	1	1	1	1	1	1	1	87	
Leiden	553	8.6	1.6	17.1	30.	0.4	28.	-2.0	22.	91	126	109	20	19	3	1	1	1	1	13	1	1	1	1	1	1	1	87	
Leiden	504	8.9	1.6	17.5	1.	-2.5	28.	-5.5	28.	89	5.4	118	109	21	18	2	1	1	1	5	2	13	1	1	1	1	1	87	
Leiden	123	11.2	1.6	18.8	1.	0.6	28.	-1.0	28.	82	5.4	73	109	19	14	2	1	1	1	4	1	1	13	1	1	1	1	86	
Leiden	105	11.2	2.2	19.4	1.	0.5	28.	-1.0	28.	82	5.4	54	95	20	15	2	1	1	1	4	1	1	13	1	1	1	1	86	
Leiden	300	9.4	1.7	17.8	1.	-0.8	28.	-1.0	28.	89	5.7	110	120	20	17	2	1	1	1	5	2	13	1	1	1	1	1	78	70
Leiden	563	8.2	1.3	15.8	1.	-3.0	28.	-3.0	28.	90	5.1	149	126	20	18	4	1	1	1	7	1	1	17	1	1	1	1	80	
Leiden	495	8.5	1.7	17.5	1.	-3.0	28.	-3.0	28.	91	5.7	144	127	21	19	4	1	1	1	7	1	1	17	1	1	1	1	80	
Leiden	440	9.1	1.5	16.5	1.	1.5	27.28.	-7.3	28.	88	5.9	100	112	20	15	3	1	1	1	5	2	13	1	1	1	1	1	78	70
Leiden	607	8.1	1.5	17.0	30.	-0.8	28.	-0.8	28.	87	5.9	136	139	21	19	3	1	1	1	3	1	1	18	1	1	1	1	86	77
Leiden	317	9.5	1.9	19.2	1.	-0.3	28.	-0.3	28.	87	5.8	136	143	21	17	4	1	1	1	3	1	1	18	1	1	1	1	86	77
Leiden	175	10.9	2.0	19.2	1.	-0.6	28.	-2.6	28.	82	5.6	57	114	19	12	2	1	1	1	2	1	1	13	1	1	1	1	88	83
Leiden	51	10.4	1.5	21.0	1.	0.0	28.	-1.2	28.	85	5.3	48	102	17	9	2	1	1	1	5	1	1	1	1	1	1	1	102	83
Leiden	98	11.4	1.6	19.2	17.	0.7	28.	-0.6	28.	83	5.8	100	151	15	15	3	1	1	1	3	1	1	13	1	1	1	1	83	80
Leiden	62	11.3	1.6	19.2	30.	0.8	28.	-1.5	28.	84	5.9	101	174	22	16	3	1	1	1	4	1	1	14	1	1	1	1	87	85
Leiden	72	11.0	1.6	19.2	30.	0.0	28.	-0.7	28.	87	5.7	88	144	22	15	2	1	1	1	6	1	1	14	1	1	1	1	94	102
Leiden	21	11.3	1.6	19.2	30.	1.8	28.	-1.0	28.	87	6.0	102	157	19	15	3	1	1	1	6	1	1	14	1	1	1	1	73	
Leiden	157	11.2	1.6	19.0	30.	-0.2	28.	-0.2	28.	84	6.0	100	131	21	15	4	1	1	1	2	1	1	17	1	1	1	1	82	
Leiden	45	11.6	1.3	18.0	30.	-1.4	28.	0.5	28.	87	6.2	109	168	21	15	3	1	1	1	2	1	1	14	1	1	1	1	84	
Leiden	92	11.7	1.3	19.8	30.	-1.1	28.	0.0	28.	83	5.5	75	19	15	1	1	1	1	1	1	1	1	1	1	1	1	1	84	
Leiden	240	10.3	1.9	18.8	1.	-1.9	28.	-2.1	28.	85	6.0	74	130	21	16	1	1	1	1	3	1	1	14	1	1	1	1	98	100
Leiden	154	11.5	1.5	19.4	30.	5.2	28.	-2.2	28.	84	5.8	164	219	21	16	5	1	1	1	10	2	3	15	1	1	1	1	86	
Leiden	100	11.8	2.1	19.5	30.	-1.9	28.	-1.9	28.	82	5.7	107	18	16	4	1	1	1	1	1	1	1	15	1	1	1	1	86	
Leiden	218	10.4	1.8	19.8	30.	-2.0	28.	-2.5	28.	84	5.7	117	141	24	19	4	1	1	1	1	1	1	16	1	1	1	1	86	

Nordrhein-Westfalen

Bad Salzig (W-F)

Münster (W-F)

Gut (W-F)

Bochum (W-F)

Bochum (W-F)

Klee

Appelhof (W-F)

Bentrich (W-F)

Lützen (W-F)

Hagen (W-F)

Arensberg

Table 3 ctd.

Station	Höhe über NN m	Lufttemperatur in °C					Windrichtung in Grad	Windgeschwindigkeit in m/s	Zeit in Tag										Gesamt Windst. in m/s			
		Mittel	Abweichung	höchste	tiefste	Datum			Tageszeit					Nebel	Gewitter	Regen	Tage	Sommerfrost	Frosttag	Eisfrost		
									0-5	6-10	11-15	16-20	21-24									
Hessen																						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
100m	39	11.6	1.5	18.0	16.18.	3.1 26.	2.5 28.	86 5.5	106 196	15	16	17	18	19	20	21	22	23	24	25		
Wuppertal-Ruchelshol	128	11.4	1.9	19.4	16.	0.2 28.	0.0 28.	84 5.8	161 177	21	16	5	.	.	.	.	1	1	12	.
Ludenscheid	444	9.7	1.4	18.5	30.	3.7 22.	1.8 28.	85 6.1	162 153	22	17	8	.	.	.	.	3	1	14	.
Düsseldorf (Südfrühst.)	337	12.0	1.6	18.7	18.	3.0 28.	-0.5 28.	83 5.5	135 260	20	16	4	.	.	.	.	11	2	21	.
Kahler Asten (Wst.)	839	7.0	1.5	16.2	31.	0.4 22.	-0.3 28.	92 6.4	161 126	25	21	5	1	.	.	.	2	2	22	.		
Köln (Bot. Garten)	45	11.8	1.3	18.0	18.	2.6 28.	-0.6 28.	85 5.9	101 187	20	17	2	.	.	.	.	3	3	18	.
Köln-Wahn (Flugh.)	73	11.7	1.9	18.4	18.	0.7 28.	-0.6 28.	82 5.7	89 165	20	15	2	.	.	.	.	3	2	15	.
Sege	263	10.4	1.9	17.0	1.18.	-1.2 28.	-1.1 28.	87 6.1	97 123	22	17	2	.	.	.	.	11	1	19	.
Aachen (Wst.)	202	11.7	1.6	19.3	30.	4.5 28.	1.2 28.	82 5.6	89 139	18	13	3	.	.	.	.	1	1	13	.
Euskirchen	176	11.8	2.0	18.4	17.	1.3 28.	0.3 28.	79 5.5	53 136	19	13	1	.	.	.	.	1	3	14	.
Rodgen	440	10.0	1.7	18.5	30.	2.8 27.	-0.5 27.	84 5.8	113 130	18	16	4	.	.	.	.	2	3	16	.
Sistig	505	9.6		18.0	30.	1.0 28.	-1.5 28.	84 5.7	83	20	15	3	.	.	.	.	1	3	13	.
Hessen																						
580	9.0	1.9	20.0	31.	-1.5 28.	-3.1 28.	-2.9 28.	84 6.0	105 106	24	19	3	.	.	.	.	2	1	2	.
231	10.2	1.2	19.2	1.	-0.9 28.	-2.9 28.		85 5.9	66 122	17	13	.	.	.	.	.	7	2	17	.
Hessen																						
290	9.7	1.5	18.4	15.	-1.7 28.	-1.9 22.	-0.9 31.	88 6.3	79 125	21	16	2	.	.	.	.	9	1	1	.
500	9.2	2.1	17.5	1.	1.5 28.	-0.5 28.	-0.5 28.	87 6.1	81 123	21	15	1	.	.	.	.	15	1	2	.
212	10.5	2.2	21.6	1.	0.4 28.	-0.2 28.	-0.2 28.	84 6.2	58 102	21	15	.	.	.	.	.	9	1	2	.
195	10.7	1.7	18.1	1.	-0.5 28.	-2.4 28.	-2.4 28.	86 6.4	61 127	21	14	.	.	.	.	.	8	1	21	.
262	9.8	1.2	18.1	1.	-0.4 28.	-2.5 28.	-2.5 28.	86 6.1	61 95	20	16	.	.	.	.	.	5	2	15	.
276	9.8	1.7	20.2	1.	-0.4 28.	-1.9 28.	-1.9 28.	83 6.5	50 93	16	11	1	.	.	.	.	9	1	2	.
186	10.7	1.7	18.1	1.	0.4 28.	-2.7 28.	-2.7 28.	83 5.6	47 107	19	10	1	.	.	.	.	7	1	4	.
255	10.1	1.8	20.5	1.	-0.2 28.	-0.9 31.	-0.9 31.	86 6.0	76 87	17	13	1	.	.	.	.	10	1	17	.
315	10.0	1.1	19.4	1.	0.4 28.	-3.6 28.	-3.6 28.	90 6.0	114 115	20	17	3	.	.	.	.	28	1	3	.
921	6.9	1.6	15.0	1.	2.7 28.31.	-1.2 31.	-1.2 31.	89 6.2	112 104	18	16	3	.	.	.	.	16	1	3	.
608	8.4	1.4	17.2	1.	1.1 22.28.	0.3 28.	0.3 28.	79 5.9	39 80	16	12	1	.	.	.	.	8	2	13	.
118	11.2	2.3	19.9	10.	-0.4 28.	-2.0 28.	-2.0 28.	86 4.7	45 107	16	10	.	.	.	.	.	4	2	4	.
160	10.4	1.4	19.2	1.	0.6 28.	-0.1 28.	-0.1 28.	88 5.7	52	20	12	.	.	.	.	.	6	1	3	.
155	10.8		21.9	1.	0.6 28.	0.0 28.	0.0 28.	92 6.3	85 109	19	15	2	1	.	.	.	28	2	2	.		
805	7.4	1.3	15.0	31.	2.5 21.22.	2.5 21.22.		87 5.8	42 88	18	13	.	.	.	.	.	3	1	15	.
145	11.0	1.6	19.2	18.	2.0 28.	-0.6 28.	-0.6 28.	85 5.6	40 80	16	11	.	.	.	.	.	8	2	1	.
112	11.1	1.9	20.2	1.	0.7 28.	-0.8 28.	-0.8 28.	83 5.7	44 113	16	11	1	.	.	.	.	7	2	1	.
118	11.2	1.5	20.0	1.	2.5 28.	-0.7 28.	-0.7 28.	85 5.8	43 84	16	11	.	.	.	.	.	9	1	15	.
108	11.2	1.0	21.1	1.	1.6 28.	-0.7 28.	-0.7 28.	86 5.2	85	16	13	3	.	.	.	.	13	1	5	.
445	10.0		18.8	1.	2.9 28.	0.6 28.	0.6 28.	86 6.1	71 82	17	14	3	.	.	.	.	7	1	15	.
450	9.8	1.4	18.4	1.	1.8 29.31.	-0.7 28.	-0.7 28.						.	.	.	.				.
Saarland																						
368	10.2		17.4	18.	3.6 7.	0.7 31.	0.7 31.	88 5.7	130	20	15	5	.	.	.	.	8	1	4	.
153	11.4	1.8	19.9	18.	2.5 28.31.	2.5 28.31.	2.5 28.31.	86 6.4	100 172	19	12	2	.	.	.	.	8	1	18	.
420	10.0		17.9	14.18.	3.0 7.29.	1.0 22.28.	1.0 22.28.	95 5.5	79	16	15	1	.	.	.	.	19	1	4	.
396	10.0		17.2	18.	2.7 28.	0.4 31.	0.4 31.	88 6.0	95	20	15	3	.	.	.	.	13	1	3	.
223	10.3	1.6	18.9	18.	0.6 31.	-1.0 28.	-1.0 28.	89 5.8	84 127	16	15	1	.	.	.	.	4	3	16	.
236	10.5		18.2	18.	0.5 28.	-0.3 28.	-0.3 28.	84 6.2	47 66	16	13	.	.	.	.	.	15	1	15	.
235	10.3	1.5	19.0	18.	0.0 31.	-1.4 28.	-1.4 28.	85 6.1	60 94	16	13	.	.	.	.	.	14	1	13	.
363	10.2	1.2	17.8	18.	2.3 31.	1.3 31.	1.3 31.	91 5.7	66 105	18	13	1	.	.	.	.	16	1	3	.
187	11.2		19.5	18.	1.3 31.	0.0 31.	0.0 31.	90 5.9	50	16	12	.	.	.	.	.	6	1	15	.
193	11.0	1.6	19.6	18.	0.0 31.	-1.2 28.	-1.2 28.	84 4.9	50	85	16	12	.	.	.	.	11	5	12	.
323	10.2	1.2	17.6	18.	2.0 31.	-1.6 31.	-1.6 31.	87 5.5	58	97	17	12	.	.	.	.	13	3	12	.
Saarland																						
368	10.2		17.4	18.	3.6 7.	0.7 31.	0.7 31.	88 5.7	130	20	15	5	.	.	.	.	8	1	4	.
153	11.4	1.8	19.9	18.	2.5 28.31.	2.5 28.31.	2.5 28.31.	86 6.4	100 172	19	12	2	.	.	.	.	8	1	18	.
420	10.0		17.9	14.18.	3.0 7.29.	1.0 22.28.	1.0 22.28.	95 5.5	79	16	15	1	.	.	.	.	19	1	4	.
396	10.0		17.2	18.	2.7 28.	0.4 31.	0.4 31.	88 6.0	95	20	15	3	.	.	.	.	13	1	3	.
223	10.3	1.6	18.9	18.	0.6 31.	-1.0 28.	-1.0 28.	89 5.8	84 127	16	15	1	.	.	.	.	4	3	16	.
236	10.5		18.2	18.	0.5 28.	-0.3 28.	-0.3 28.	84 6.2	47 66	16	13	.	.	.	.	.	15	1	15	.
235	10.3	1.5	19.0	18.	0.0 31.	-1.4 28.	-1.4 28.	85 6.1	60 94	16	13	.	.	.	.	.	14	1	13	.
363	10.2	1.2	17.8	18.	2.3 31.	1.3 31.	1.3 31.	91 5.7	66 105	18	13	1	.	.	.	.	16	1	3	.
187	11.2		19.5	18.	1.3 31.	0.0 31.	0.0 31.	90 5.9	50	85	16	12	.	.	.	.	6	1	15	.
193	11.0	1.6	19.6	18.	0.0 31.	-1.2 28.	-1.2 28.	84 4.9	50	85	16	12	.	.	.	.	11	5	12	.
323	10.2	1.2	17.6	18.	2.0 31.	-1.6 31.	-1.6 31.	87 5.5	58	97	17	12	.	.	.	.	13	3	12	.

Table 3 ctd.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
Rheinland-Pfalz																														
Badenweiler (b. d. d.)	590	17.3	1.4	14.6	16.		0.6	28.	-0.6	28.	88	5.7	84	102	19	14	2				4	1	2	13					88	71
Badenweiler (b. d. d.)	547	8.8	1.1	15.9	16.		2.1	28.	-2.6	28.	89	6.0	96	110	23	16	3				18	1	3	21					87	
Badenweiler (b. d. d.)	111	12.2	2.4	20.5	10.		2.0	28.31.	-1.0	31.	86	5.6	40	88	12	11	1				7			8						
Badenweiler (b. d. d.)	124	11.4		19.3	10.		2.2	28.	-0.5	28.	84	5.8	41	76	17	11	1				7			11						
Badenweiler (b. d. d.)	250	10.5		19.0	10.		-1.0	28.	-3.5	28.	84	6.0	76	104	18	15	1				7	1	1	14						
Badenweiler (b. d. d.)	72	12.1	2.1	20.2	10.		3.5	28.	3.2	28.	85	6.5	59	134	15	13	1						16						88	
Badenweiler (b. d. d.)	527	8.9	1.6	15.3	31.		2.6	28.	0.8	28.	85	6.0	75	127	20	14	3				17	1	2	17						
Badenweiler (b. d. d.)	270	11.0	2.0	18.8	10.		0.0	28.	-1.2	28.	83	5.2	33	77	15	13	2				4	3	14							
Badenweiler (b. d. d.)	657	8.4	1.4	15.3	30.		1.2	27.	-1.6	28.	85	6.8	71	131	14	13	2				7	1	21							
Badenweiler (b. d. d.)	530	8.7	1.2	15.3	30.		1.6	28.	-0.1	28.	90	6.5	127	174	21	15	3				22	1	3	20						
Badenweiler (b. d. d.)	403	9.2	1.2	16.9	18.30.		-0.1	28.	-2.2	28.	88	5.7	89	139	17	15	3				13	1	2	14						84
Badenweiler (b. d. d.)	400	9.9	1.7	17.0	18.		-1.0	28.	-1.2	28.	91	6.3	77	140	17	13	2				13	1	2	14						63
Badenweiler (b. d. d.)	440	9.8	1.6	16.2	18.		-1.0	31.	-1.0	31.	87	5.8	57	106	21	17	1				7	1	1	18						
Badenweiler (b. d. d.)	125	11.3	1.6	19.5	1.		1.5	28.	0.0	28.	81	5.4	33	79	17	11	1				1	1	3	14						
Badenweiler (b. d. d.)	120	11.5	1.6	19.6	18.		3.8	28.	-1.6	28.	86	5.1	65	130	17	12	2				7	1	1	14						60
Badenweiler (b. d. d.)	155	11.1	1.6	19.5	1.		1.0	28.	-1.6	28.	82	6.2	23	62	21	17	1				4	1	1	14						81
Badenweiler (b. d. d.)	345	9.6	2.0	17.5	18.		0.1	31.	-0.4	31.	86	5.8	52	102	17	12	1				9	1	1	12						95
Badenweiler (b. d. d.)	480	9.8	1.2	18.0	30.		3.6	18.	1.4	31.	86	5.9	69	113	18	12	2				5	1	3	15						72
Badenweiler (b. d. d.)	144	11.3	1.6	19.7	18.		-2.9	28.	0.8	28.	85	6.1	94	171	16	13	3				6	1	1	16						41
Badenweiler (b. d. d.)	265	10.5	1.1	18.9	18.		2.0	28.	1.4	28.	88	6.2	101	187	20	13	4				13	1	1	18						64
Badenweiler (b. d. d.)	166	11.1	1.9	19.7	1.		0.0	28.	-2.0	28.	87	5.7	25	71	17	8	1				10	1	1	12						76
Badenweiler (b. d. d.)	395	9.1	1.3	16.6	18.		-1.6	31.	-2.6	31.	87	5.5	107	151	16	15	5				5	1	3	12						
Badenweiler (b. d. d.)	485	10.0		18.0	1.		4.4	29.	1.5	7.	83	5.1	36	72	14	11	1				6	5	15							
Badenweiler (b. d. d.)	248	10.9	1.3	20.1	1.		0.0	31.	-0.2	31.	84	5.4	32	59	15	9	1				7		18							90
Badenweiler (b. d. d.)	553	9.7	1.5	17.4	1.		3.8	30.	1.5	31.	84	5.3	30	15	8	1					12	2	10							94
Badenweiler (b. d. d.)	125	11.1	1.5	20.0	19.		0.8	28.	-1.9	28.	85	5.8	23	17	7	1					5		12							91
Badenweiler (b. d. d.)	280	9.4		18.8	1.		-1.4	31.	-2.4	31.	88	6.1	52	80	17	14	1				17	1	1	17						
Badenweiler (b. d. d.)	180	10.7	1.0	20.7	1.		2.0	30.	-1.5	30.	90	5.1	60	105	12	9	3				5		4							93
Baden-Württemberg																														
Baden-Württemberg	140	11.1	2.3	21.4	1.		2.0	22.	2.0	22.	80	4.8	34	61	17	8	1				15			3						
Baden-Württemberg	199	10.7		23.2	1.		0.4	29.	0.0	31.	82	5.3	42	93	17	8	1				12	1		7						
Baden-Württemberg	96	11.4	1.8	20.8	1.		1.6	28.	-0.7	28.	85	5.7	39	83	16	10	1				9	1		11						106
Baden-Württemberg	250	10.2	1.7	22.1	1.		-0.1	31.	-2.3	31.	85	5.8	41	68	15	8	1				5	1		11						89
Baden-Württemberg	176	10.7	1.6	19.7	1.		2.3	31.	-0.9	29.	85	5.3	34	71	20	8	1				8	1	1	11						106
Baden-Württemberg	111	12.2	1.5	21.0	1.		2.8	28.	2.5	28.	84	6.6	59	77	13	11	1				5	1		18						
Baden-Württemberg	210	10.8	1.4	23.0	1.		0.0	31.	-0.6	31.	88	5.1	44	71	16	9	1				16	1	4							93
Baden-Württemberg	209	10.6	1.2	22.4	1.		0.5	31.	-0.1	31.	87	5.5	45	73	15	8	1				10	1		10						
Baden-Württemberg	160	11.4	1.8	21.0	19.		3.0	30.	0.5	28.	83	6.3	47	80	20	10	1				7		16							
Baden-Württemberg	276	10.6	1.4	22.5	1.		0.2	31.	-3.0	31.	83	4.9	41	67	21	8	1				6	2	5	11						123
Baden-Württemberg	167	11.0	1.2	23.5	1.		1.2	30.	0.5	30.	84	5.0	41	60	19	8	1				6	1	2	7						
Baden-Württemberg	210	10.8	1.7	21.7	1.		0.5	31.	-0.4	29.	86	4.9	42	75	14	8	1				14	2	1	7						
Baden-Württemberg	418	9.3	1.2	20.7	19.		-1.6	31.	-1.8	29.	80	5.0	28	46	12	8	1				7			7						
Baden-Württemberg	379	10.2		21.4	1.		-1.2	31.	-2.3	30.	86	5.7	38	18	8	1	1				8	2		10						109
Baden-Württemberg	112	11.3	1.5	22.4	1.		3.1	17.	* 1.6	17.	85	5.6	45	80	14	9	1				10	1	2	14						103
Baden-Württemberg	116	11.4	1.8	21.5	19.		2.2	28.	* 1.5	29.	89	6.9	47	84	12	9	1				16	1	19							84
Baden-Württemberg	354	9.5	1.2	21.8	1.		-0.2	31.	-1.2	31.	85	4.3	50	65	10	9	1				13	1	8	9						69
Baden-Württemberg	443	9.3	1.7	21.7	19.		-1.8	29.	-2.3	31.	82	4.8	29	50	11	5	1				14	1	3	8						112
Baden-Württemberg	492	9.1	1.3	21.1	1.		-1.0	29.	-3.0	31.	82	4.7	37	47	11	7	1				14	1	7	9						87
Baden-Württemberg	245	10.7	2.0	22.4	1.		0.4	31.	-1.0	29.31.	79	4.5	27	46	11	8	1				5		6	7						128

Oktober 1984**Oktober 1984**

Oktober 1984[illegible]

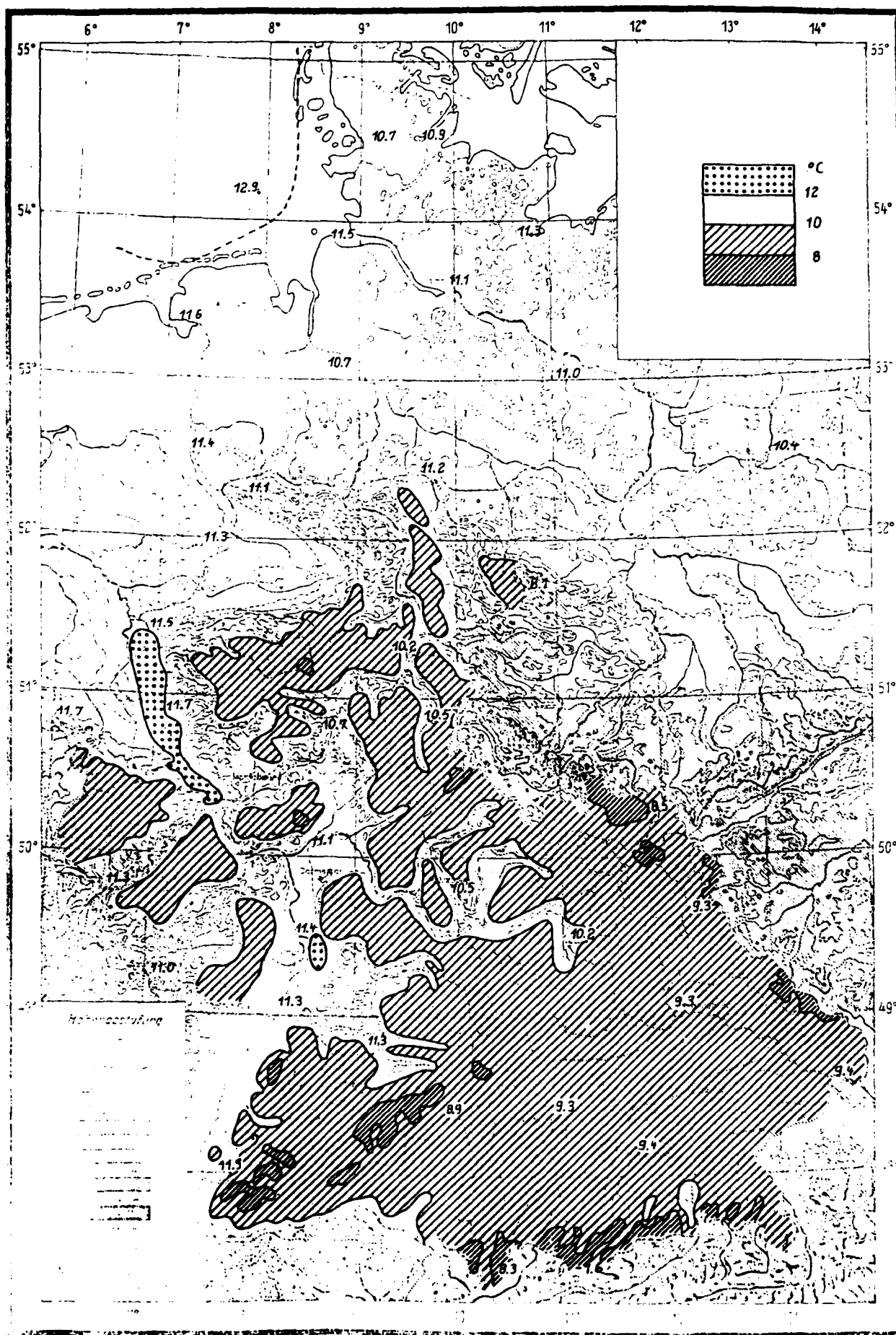


Table 3 ctd. (precipitation in mm)

Oktober 1984

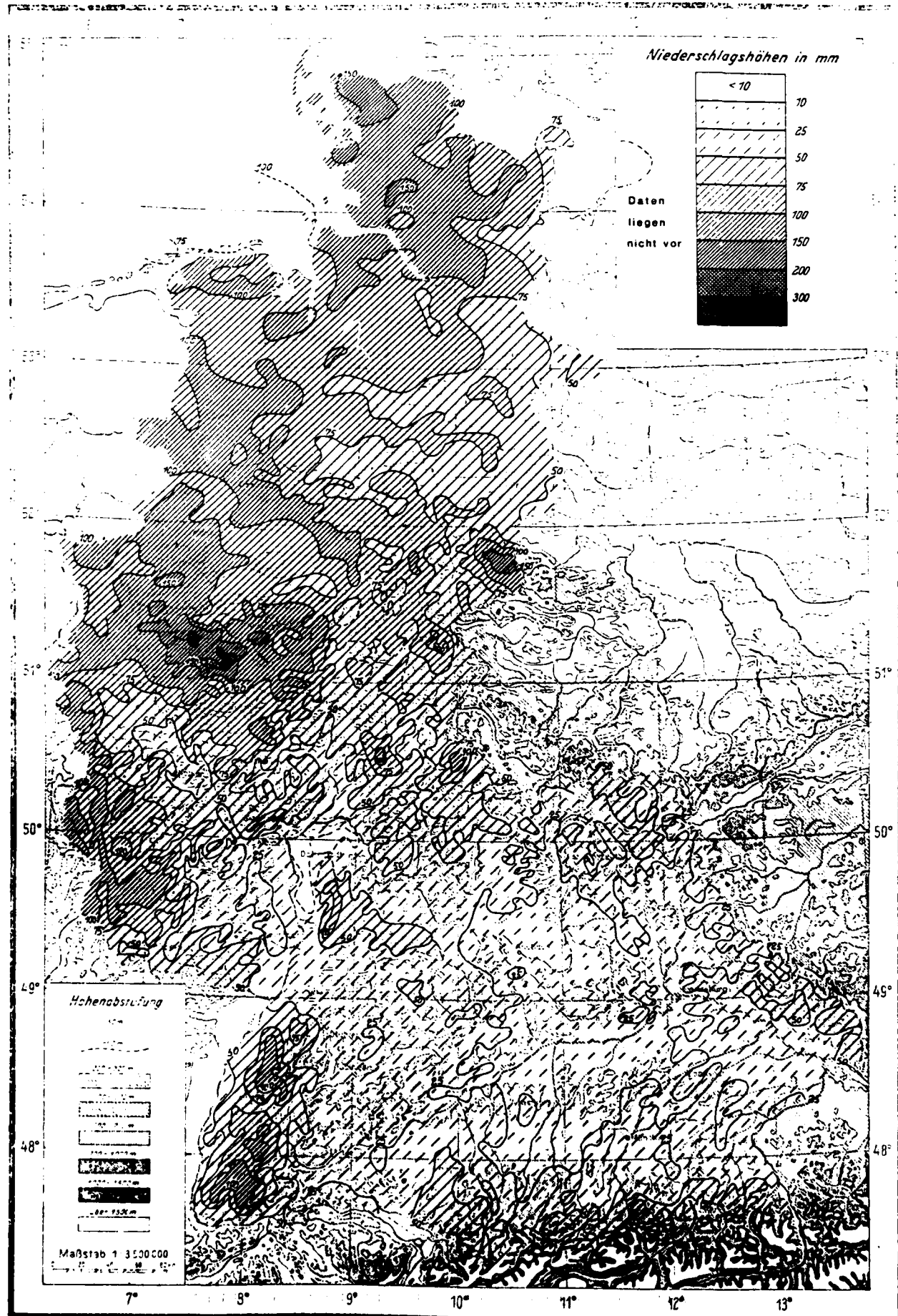


Table 3 ctd. (precipitation in % of 1931 - 1960 mean values) *Oktober 1984*

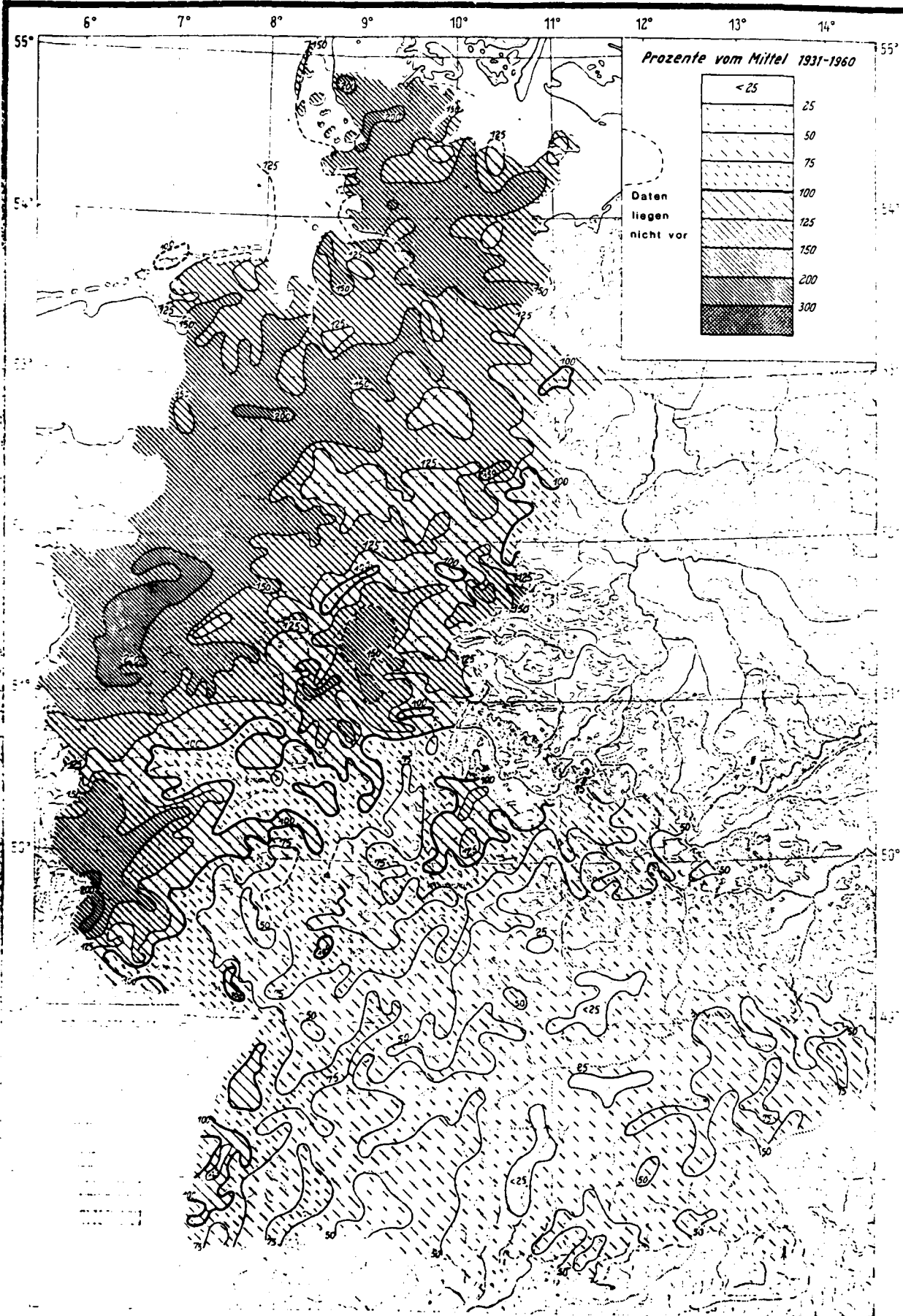


Table 3 ctd. (air temperature in % of 1931 - 1960 mean values)

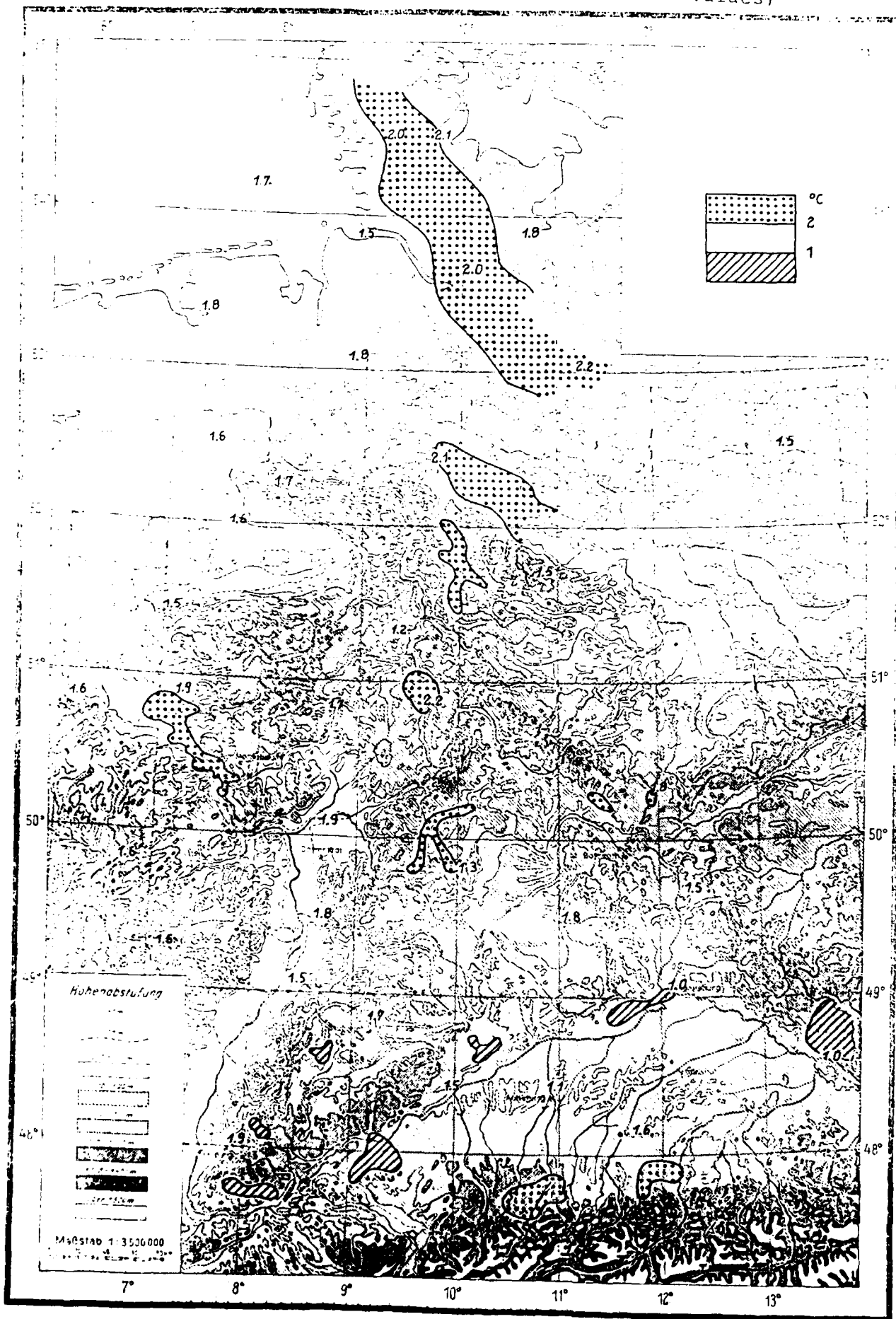


Table 4 Meteorological/Climatological Data for the Areas of Investigation (November 1984)

November 1984

Monatswerte

Station	Höhe über NN m	Lufttemperatur in °C					Luftfeuchtigkeit			Niederschlag					Zahl der Tage					Sonnen- schein- dauer in Std								
		Abweichung %		höchste		Datum	tiefe	an Luft	an Boden	Datum	Luftfeuchtig- keit	Niederschlag in mm	Schnee fall mm	Schnee decke cm	Nebel	Gewitter	Regen	heißer Tage	kühler Tage	Eis- tage	in Std	in Std						
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Schleswig-Holstein																												
List auf Sylt (Wst.)	26	6.3	0.4	12.6	1.	0.4 16.19.	-1.5 20.				87 5.7	80 133		16 11	3 3	1 1		7 3	3 3	14 14							54 113	
Leck (BW)	7	5.7	0.7	14.8	2.	-0.4 20.	-3.0 27.				87 5.4	84 105		17 12	2 2	2 2		9 2	3 3	18 18							56 106	
Flensburg (Schäferhaus)	41	5.5	0.6	14.5	2.	-1.0 27.	-3.4 27.				88 5.8	83 126		9 3	1 1	1 1		6 1	3 3	16 16							48 48	
Wyk/Fohr	1	6.1		12.9	2.	-0.4 16.	-4.6 27.				89 5.9	70 127		11 7	2 2	2 2		4 2	4 2	16 16							49 129	
Stoltebüll I)	28	5.7	0.7	14.5	1.	-0.1 18.19.	-0.5 20.27.				86 5.5	69 101		16 8	3 3	2 2		8 1	3 3	16 16							59 129	
Schleswig (WA)	43	5.5	0.6	15.0	2.	-1.7 16.	-2.9 20.				86 5.5	55 128		9 2	2 2	2 2		8 1	3 3	15 15							59 129	
Westmarkelsdorf-Fehmarn I)	1	5.3	-0.3	14.0	1.	-1.2 18.19.	-2.1 14.				85 5.6	61 94		17 7	3 3	2 2		8 1	3 3	15 15							59 129	
Schleswig (BW)	28	5.0	0.2	14.2	1.	-1.7 16.	-2.6 20.				88 5.3	75 136		13 6	3 3	2 2		5 1	4 4	16 16							57 125	
Kiel-Kronsdagen (Wst)	17	5.4	0.3	15.0	1.	-1.8 16.	-1.8 27.				88 5.6	78 147		12 7	3 3	2 2		6 1	3 3	13 13							67 67	
Hohwacht	10	5.3	0.0	14.2	1.	-1.0 16.17.	-3.9 20.				87 5.2	72 114		18 9	3 3	2 2		6 1	3 3	13 13							56 56	
Erde I)	18	5.2	0.4	15.4	1.	-3.6 20.	-3.5 15.				87 5.2	73 106		13 8	3 3	2 2		7 1	4 4	12 12							63 134	
Sankt Peter-Ording	4	5.7	0.1	14.1	2.	-2.0 16.	-4.8 14.				85 5.5	84 150		9 6	3 3	2 2		5 1	4 4	15 15							48 48	
Rendsburg	8	5.2	0.3	15.0	1.	-1.7 16.	-4.5 14.17.				86 5.4	73 106		13 8	3 3	2 2		7 1	4 4	12 12							67 67	
Lemhorn	14	5.2	0.2	14.0	1.	-2.4 17.	-2.3 14.15.				85 5.1	83 100		16 8	3 3	2 2		7 1	4 4	12 12							63 134	
Held-Holstein	12	5.3	0.3	15.5	1.	-2.1 20.	-0.3 16.				87 5.2	82 132		12 6	3 3	3 3		7 1	4 4	12 12							48 48	
Heldland (Wst)	4	8.0	0.5	13.8	1.	0.0 16.	-2.5 16.				85 5.8	78 137		12 6	3 3	3 3		7 1	4 4	12 12							67 67	
Plön (Seet I)	24	5.1	-0.1	13.9	1.	-2.5 16.	-2.0 17.				85 5.6	82 132		14 7	3 3	2 2		7 1	4 4	12 12							49 49	
Flint	50	4.9	0.3	14.9	1.	-2.6 16.	-4.7 14.				86 6.0	90 130		12 7	4 4	2 2		7 1	4 4	12 12							57 126	
Hohenwestedt	80	4.5	0.2	14.0	1.	-2.9 16.	-4.7 14.				86 6.0	82 132		14 7	3 3	2 2		7 1	4 4	12 12							64 64	
Neumünster	21	5.1	0.3	15.2	1.	-3.0 16.	-5.8 17.				83 4.6	74 119		14 9	3 3	2 2		7 1	4 4	12 12							67 67	
Helbe, Kr. Dithmarschen I)	2	5.0	-0.1	14.5	1.	-2.1 16.	-2.5 14.15.				65 4.5	51 119		17 6	2 2	2 2		6 1	3 3	13 13							49 49	
Travemünde I)	9	4.9	-0.2	14.1	1.	-2.7 19.	-3.5 20.				82 5.3	72 121		15 7	3 3	2 2		6 1	3 3	13 13							57 126	
Wahlstedt	45	4.9	0.3	15.5	1.	-3.1 16.	-3.3 15.				83 6.3	72 121		15 7	3 3	2 2		6 1	3 3	13 13							64 64	
Lubeck (Wst)	8	5.0	-0.2	15.6	1.	-3.2 16.	-3.9 20.				79 5.4	55 102		10 6	2 2	2 2		9 1	2 2	15 15							55 55	
Brande-Hornkirchen I)	9	5.1	0.5	16.0	1.	-2.1 16.	-4.5 14.				86 6.1	67 102		9 5	2 2	3 3		13 1	15 15							62 62		
Glücksstadt I)	2	5.3	0.1	16.0	1.	-2.8 16.	-2.5 15.16.				88 5.7	63 102		10 5	2 2	3 3		11 4	15 15							62 62		
Quicksborn I) Alt- u. Kr. Pinnberg	13	5.5	0.9	15.9	1.	-2.1 16.	-2.9 14.				82 5.3	66 105		11 4	2 2	3 3		11 4	15 15							62 62		
Ahrensburg-Wulsdorf (AMBF)	46	5.0	0.4	15.0	1.	-2.4 16.	-4.1 15.				87 5.3	56 112		9 4	2 2	3 3		12 3	13 13							62 62		
Mölln I)	27	4.6	0.1	15.1	1.	-2.7 16.	-4.4 14.				86 5.3	56 112		9 4	2 2	3 3		12 3	13 13							62 62		
Niedersachsen																												
Hamburg-Fuhlsbüttel (Flugh.)	13	5.4	0.5	15.5	1.	-2.8 16.	-3.7 20.				84 4.9	64 112		9 4	3 3	1 1		5 1	5 12								68 154	
Bremerhaven (Wewal)	7	6.1	0.6	15.6	1.	-2.0 16.	-2.2 15.				86 5.1	69 108		11 4	2 2	2 2		3 1	4 11								77 153	
Bremen (Flugh.)	4	5.7	0.8	15.6	1.	-1.9 16.	-2.6 15.				86 5.3	56 93		10 6	2 2	2 2		5 1	4 9								72 144	
Niedersachsen																												
Cuxhaven (Wst)	5	5.9	0.2	16.4	1.	-1.1 17.	-1.6 17.				88 5.0	64 98		11 8	2 2	2 2		5 1	7 11								71 141	
Wangerooge	3	6.2	0.1	15.7	1.	-1.6 16.17.	-2.9 16.				91 6.3	65 93		13 7	2 2	1 1		2 1	16 16								67 120	
Langeoog	5	6.2	0.1	15.2	1.	-1.5 17.	-1.5 16.17.				89 5.5	70 96		12 6	2 2	1 1		1 1	13 13								67 120	
Norderney (Wst)	11	6.4	0.1	15.8	2.	-1.1 16.17.	-1.7 15.				87 5.2	76 106		12 8	2 2	1 1		2 1	5 11								67 120	
Borkum	27	5.3	0.2	15.0	1.	-2.1 16.	-3.0 14.				86 5.1	77 122		11 7	2 2	2 2		3 3	6 11								71 71	
Wilhelmshaven	1	6.2	0.7	15.7	1.	-1.5 16.	-1.5 16.				86 4.8	82 124		14 6	2 2	2 2		2 2	4 10								69 69	
Jever (BW)	7	6.0	0.6	15.6	1.	-2.1 16.	-2.2 16.				83 5.0	71 100		14 6	3 3	2 2		2 2	5 13								59 59	
Jork	1	5.1	0.3	15.3	1.	-2.9 20.	-3.2 20.				83 5.1	50 86		9 5	2 2	2 2		2 2	7 15								59 59	
Bremerhaven	5	5.3	0.4	15.3	1.	-2.4 16.	-3.7 14.				83 5.0	69 105		8 6	2 2	1 3		3 5	7 16								59 59	
Aurich	4	5.8	0.5	16.3	1.	-1.9 16.	-2.9 27.				88 6.1	76 103		14 6	3 3	2 2		2 2	16 16								69 69	
Emden-Neerland (Wst)	5	6.5	0.9	16.0	2.	-2.0 15.	-2.9 15.				85 5.1	67 94		11 6	2 2	1 1		2 1	13 13								69 128	

1) Sonnenscheindauer nicht direkt am Standort der Station festgestellt *) vom Mittel 1931-1960 **) vom Mittel 1951-1960
Abkürzungen: WA = Wetteramt, Wewal = Wetterwarte, Wst = Wetterstation, AMBF = Aerometeorologische Beobachtungs- und
Forschungsstelle, BW = Bundeswehr, Kbst = Klimabeobachtungsstation, Nst = Niederschlagsstation

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Brake (Unterweser)	5	6.2	1.0	15.5	1.	-1.5 16.	-1.5 17.	89 5.8	50 82	11	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Brockholz a. d. Nordheide	77	4.6	4.6	16.1	1.	-3.4 20.	-4.5 20.	90 5.6	62	9	5	2	1	3	10	4	17	4	17	4	17	4	17	4	17	4	17	4
Bruckhausen	6	5.2	0.4	14.4	1.	-2.1 15.	-3.3 15.	86 6.1	67 103	8	6	2	1	4	9	6	13	6	13	6	13	6	13	6	13	6	13	6
Buschburg	11	5.3	0.3	16.0	1.	-2.3 16.	-3.5 14.	79 4.9	51 98	9	4	2	2	1	4	4	6	13	4	6	13	4	6	13	4	6	13	4
Oldenburg 11	5	5.9	0.5	16.1	1.	-2.5 15.	-3.5 15.	84 5.5	61 92	13	6	3	2	2	3	6	16	6	16	6	16	6	16	6	16	6	16	6
Rotenburg (Wunne)	24	5.0	0.0	15.9	1.	-2.9 16.	-2.5 17.	76 5.3	54 87	10	6	3	2	2	1	7	6	16	7	6	16	7	6	16	7	6	16	7
Friesoythe (Jalwischdamm)	8	6.2	1.2	16.2	1.	-1.2 16.	-2.0 14. 15.	83 5.2	61 94	9	5	3	1	3	8	1	4	14	3	8	1	4	14	3	8	1	4	14
Sollau (Wst)	77	5.1	0.5	15.8	1.	-2.7 16.	-3.4 14.	85 5.3	64 100	9	6	2	2	3	3	8	1	4	13	3	8	1	4	13	3	8	1	4
Darpen	6	6.8	1.4	16.9	1.	-1.1 17.	-2.6 14.	85 5.1	69	8	5	3	1	1	1	4	10	4	10	4	10	4	10	4	10	4	10	4
Fischow (Wst)	45	4.8	0.3	16.1	1.	-2.8 16.	-3.7 15.	90 5.4	65 130	8	7	3	2	2	3	9	1	17	2	11	1	17	2	11	1	17	2	
Althorn (BfW)	17	4.5	-0.1	15.6	1.	-2.4 16.	-3.3 14.	86 5.9	49 114	11	6	2	2	3	9	1	17	2	11	1	17	2	11	1	17	2	11	
Bassum (H. u. W. Warnant)	53	6.8	15.4	1.	-2.0 17.	-2.6 15.	-2.6 17.	84 5.2	58	10	4	2	1	2	4	3	4	9	4	9	4	9	4	9	4	9	4	
Entfelden	98	5.0	0.7	16.3	1.	-3.1 16.	-2.0 15.	84 5.4	64 102	8	7	2	2	3	2	4	16	4	16	4	16	4	16	4	16	4	16	4
Loungen	36	6.8	1.5	17.6	1.	-1.5 17.	-2.0 15.	83 5.8	54 81	10	7	2	1	1	1	4	14	3	1	1	4	14	3	1	1	4	14	3
Hankensbüttel	84	4.3	0.0	15.6	1.	-3.0 16.	-7.5 14.	87 5.7	59 105	8	7	2	2	3	12	3	17	3	12	3	17	3	12	3	17	3	12	3
Nienburg	26	5.8	0.6	16.5	1.	-1.5 16.	-2.6 15.	83 4.7	59 107	10	6	2	2	2	1	2	6	9	1	2	6	9	1	2	6	9	1	2
Engen (Wst)	21	7.4	1.7	17.3	1.	-0.4 17.	-1.3 15.	80 4.9	68 100	8	7	2	1	2	1	2	6	9	1	2	6	9	1	2	6	9	1	2
Althausen	48	5.6	1.5	17.0	1.	-0.8 15. 17.	-2.6 14.	84 5.3	64 66	6	5	2	1	2	2	5	13	11	4	2	5	13	11	4	2	5	13	11
Hannover d. amoenhagen (l. high)	53	5.8	0.7	15.9	1.	-1.7 14. 17.	-3.6 14.	85 5.2	54 104	9	7	2	2	2	2	2	2	3	11	4	2	2	3	11	4	2	2	3
Nordhorn	24	7.0	1.3	17.5	1.	-0.4 17.	-2.1 19.	82 5.1	69 103	12	7	3	2	2	2	2	2	3	12	2	2	3	12	2	2	2	2	2
Wollburg-Fallenleben	74	5.2	0.6	15.7	1.	-1.5 15. 16.	-2.5 15.	84 4.2	53 100	11	6	3	2	2	2	2	2	3	8	1	5	10	4	6	1	5	10	4
Bräunschwee-Valkenrode (Wst)	81	5.6	0.6	17.6	1.	-2.2 14.	-6.2 14.	82 5.0	56 112	11	8	2	2	3	8	1	5	10	4	6	1	5	10	4	6	1	5	10
Osarbusch (Wst)	95	7.0	1.6	17.1	1.	-1.1 15.	-3.1 14.	80 5.3	63 98	11	6	3	2	2	2	2	1	4	12	2	1	4	12	2	1	4	12	2
Amundum	395	4.6	16.0	8.	-5.0 15.	-4.4 15.	-4.4 15.	87 5.7	71 96	12	8	3	3	3	3	3	3	13	7	1	2	13	7	1	2	13	7	
Helmsdorf	144	4.9	0.2	17.9	1.	-2.6 15.	-3.7 16.	81 5.7	51 98	9	6	3	3	3	3	3	3	13	5	1	2	13	5	1	2	13	5	
Hildesheim	100	5.8	0.6	16.4	2.	-2.6 14.	-4.6 14.	84 5.5	58 98	9	7	1	2	3	3	5	1	3	3	5	1	3	3	5	1	3	3	5
Hann.	64	6.6	15.7	24.	-1.4 15.	-2.6 14.	-3.2 15.	83 4.9	47 81	9	7	2	1	1	3	4	7	3	4	7	3	4	7	3	4	7	3	4
Salzterfer-Ringelheim	130	5.4	17.7	1.	-3.3 14.	-5.9 15.	-5.9 15.	83 4.8	31 61	7	5	1	1	1	8	1	11	6	8	1	11	6	8	1	11	6	8	1
Bad Harzburg	260	5.3	0.5	17.7	1.	-3.3 14.	-5.9 15.	83 4.8	32 50	9	5	2	2	1	7	6	9	4	7	6	9	4	7	6	9	4	7	6
Hahnenklee	553	4.9	2.4	17.0	2.	-5.4 15.	-6.8 15.	83	57	9	6	2	2	1	13	1	7	8	1	13	1	7	8	1	13	1	7	8
Schulenberg	504	4.8	19.2	2.	-4.2 15.	-7.4 15.	-7.4 15.	84 4.2	66	9	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Bolzmannstein	128	6.4	1.0	14.8	24.	-1.2 14.	-4.9 14.	79 5.6	56	9	8	7	2	1	2	3	10	2	2	3	10	2	2	3	10	2	2	3
Embsch.	105	5.9	1.1	14.9	24.	-3.1 15.	-8.3 6.2	83 6.2	31	57	7	6	1	1	2	16	4	7	2	16	4	7	2	16	4	7	2	
Bad Grund	300	4.3	12.2	24.	-5.1 15.	-9.0 5.2	90 5.2	46 53	8	5	2	2	2	2	7	5	16	4	7	5	16	4	7	5	16	4	7	
Classhal	563	4.5	2.0	15.0	2.	-3.3 15.	-8.1 5.0	81 5.0	67	61	10	7	2	2	8	6	12	9	8	6	12	9	8	6	12	9	8	
Altenau	495	4.4	17.5	2.	-5.2 15.	-8.4 4.6	84 4.6	75 68	9	5	2	2	1	8	6	12	4	7	8	6	12	4	7	8	6	12	4	
Luppenhaken Silberborn	440	4.7	15.0	2.	-3.4 15.	-8.2 5.4	82 5.4	57 63	8	6	2	1	1	5	6	13	4	4	5	6	13	4	4	5	6	13	4	
Brumhausen (Wst)	607	4.1	2.0	18.3	2.	-4.7 15.	-8.2 5.6	82 5.6	104 107	10	6	3	4	3	10	2	4	13	10	2	4	13	10	2	4	13	10	
Bad Lauterberg	317	5.2	16.1	1.	-2.4 14.	-8.2 5.3	82 5.3	50 54	8	6	2	2	2	5	5	11	6	6	5	5	11	6	6	5	5	11	6	
Göttingen (Wst)	175	5.9	0.9	15.4	1.	-3.0 15.	-5.4 15.	82 5.9	44 92	8	4	2	1	1	1	2	16	3	1	1	2	16	3	1	1	2	16	3
Berlin-Dahlem (Meteorol. Inst.)	51	4.3	-0.2	12.5	24.	-3.2 16.	-3.2 14. 16.	82 5.3	46 100	11	6	2	4	4	6	2	4	15	4	6	2	4	15	4	6	2	4	15
Nordhorn-Westfalen	98	7.2	1.6	14.7	23. 24.	-0.6 15.	-2.5 15.	78 5.6	44	66	11	6	2	2	1	2	3	15	2	3	15	2	3	15	2	3	15	2
Bad Salztrufel (Wst)	62	7.4	1.7	18.9	1.	0.4 14.	-1.4 14.	81 5.3	54 87	10	5	2	1	4	3	1	6	8	4	3	1	6	8	4	3	1	6	8
Monster (Wst)	72	7.1	17.2	1.	0.0 5.	-2.1 15.	-2.1 15.	81 4.8	58 91	12	8	2	2	2	3	1	6	11	3	1	6	11	3	1	6	11	3	
Gütersloh	21	7.8	2.2	17.2	2.	1.2 15.	-0.7 15.	85 5.2	50 78	15	7	2	2	2	1	4	11	4	1	4	11	4	1	4	11	4	1	4
Bischhof-Heiden (Wst)	157	7.5	2.1	17.0	1.	-0.3 15.	-2.0 15.	77 5.2	58 78	9	8	2	2	2	2	1	5	12	2	1	5	12	2	1	5	12	2	1
Bad Lappenberg (Wst)	45	8.0	2.0	16.8	1.	1.5 17.	-2.4 14. 27.	83 5.6	50 75	14	7	1	1	1	7	1	1	11	1	1	11	1	1	1	1	11	1	
Kleve	92	7.7	19.8	1.	-0.8 19.	-3.1 19.	-3.1 19.	78 4.6	42	9	8	1	1	1	2	1	5	5	2	1	5	5	2	1	5	5	2	1
Luppenhaken-Berkenbröle	240	5.7	1.5	14.1	24.	-1.7 15.	-2.6 15.	83 6.3	36 60	8	5	1	2	2	2	2	16	3	2	2	16	3	2	2	16	3	2	2
Burgentisch-Heide	154	8.5	2.7	18.0	2.	2.6 17.	-1.1 17.	77 5.4	51 61	14	8	2	1	1	1	3	13	4	1	3	13	4	1	3	13	4	1	
Loosch-Bredene (Wst)	100	7.9	20.0	2.	-0.2 14.	-2.2 14.	-2.2 14.	80 5.0	49	61	10	8	2	2	2	2	12	8	2	2	12	8	2	2	12	8	2	2
Arnsberg	218	6.9	2.2	19.0	2.	-1.5 19.	-3.2 19.	77 5.1	60 73	12	8	2	2	2	2	1	1	4	9	1	1	4	9	1	1	4	9	1

Table 4 ctd.

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Station	Höhe über NN m	Lufttemperatur in °C					Höhenwind					Zahl der Tage					Sonnen- schein- dauer m		20	
		Mittel	Abweichung %	höchste	Datum	tiefe	Datum	tiefe mit Wind	Datum	Luftdruck hPa	Wind- richtung °	Höhe m	Wind- richtung °	Höhe m	Wind- richtung °	Höhe m	Wind- richtung °	Höhe m		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Stuttgart (S. Untertürkheim)	314	6.0	1.1	16.0	24.	-1.7	28.	-4.3	19.	82.5	0	26	55	11	6	3	8	105		
Bad Herrenath	351	5.2	1.2	16.0	24.	-3.4	30.	-6.9	30.	86.5	3	79	76	11	8	3	11	44		
Döbel	717	7.4	3.9	18.4	10.	-1.0	27.	-2.5	27.	70.4	8	84	76	11	10	3	4	86		
Schönberg (Kr. Calw)	633	6.0	2.5	16.5	1.10.	-2.0	28.	-4.5	28.	78.4	7	66	81	11	7	2	7	74	105	
Schwabisch (Grund-Stralsdorf)	415	5.6	1.4	16.2	1.24.	-3.0	30.	-4.9	29.	86.4	5	37	52	9	7	1	3	8		
Wildbad (Stadt)	417	5.3	1.1	18.2	8.	-3.7	30.	-7.5	30.	84.4	3	84	78	12	9	3	7	9		
Stuttgart (W.A.)																				
Baden-Baden	218	6.3	1.0	17.4	24.	-2.2	30.	-5.0	30.	85.6	1	78	94	12	10	2	2	16		
Waldbad-Sonnenberg	740	6.7	3.3	18.2	10.	-1.9	27.	-4.5	28.	67.4	9	91	81	12	8	4	5	6	103	
Bühlertal	190	6.2	0.4	17.6	24.	-3.3	30.	-4.5	30.	82.6	6	86	93	12	11	2	18	2		
Friedrich (Mauwald)	131	6.0	1.2	17.1	24.	-2.2	29.	-3.0	30.	92.7	4	59	91	13	10	2	19	25		
Friedrich (Mauwald)	606	4.8	1.4	16.4	10.	-2.4	28.	-5.2	29.	82.4	3	96	91	13	8	2	4	7	8	
Stetten (Wst.)	734	3.6	1.4	13.8	3.24.	-6.5	30.	-7.0	29.	86.6	0	43	61	12	7	1	20	16		
Heidenheim (Brenz)	500	3.4	0.7	15.4	24.	-6.5	29.	-8.0	29.30.	91.6	7	48	80	15	7	1	17	1		
Nürtingen-Oberensingen	280	4.6	0.2	16.5	24.	-5.0	30.	-6.2	19.	85.5	3	44	80	14	8	1	13	11		
Hornsmünde	1122	5.8	4.2	16.4	2.	-3.0	27.	-5.5	27.	73.5	3	113	65	11	10	4	4	15	1	
Nagold	392	4.6	0.6	15.5	11.	-4.0	30.	-4.5	30.	91.4	1	85	160	12	7	2	11	10		
Lenningen-Schopfloch	758	6.0	3.2	18.2	10.	-3.0	28.	-4.0	28.	73.5	6	51	77	9	7	2	6	3		
Laichingen	747	3.5	1.4	13.8	24.	-5.4	30.	-6.2	30.	85.5	6	69	121	21	8	3	1	2		
Rotenburg	342	4.6	1.2	17.1	24.	-5.4	29.30.	-7.1	29.	86.6	2	38	10	6	1	1	14	2		
Offenburg	155	6.5	1.2	17.0	24.	-2.5	30.	-5.5	30.	89.7	1	45	63	22	9	1	18	1		
Freudenstadt (Wst.)	797	5.7	2.9	16.8	10.	-1.8	28.	-4.7	28.	81.4	9	196	148	12	8	4	3	1		
Gengenbach	185	6.2	0.8	17.6	24.	-1.6	30.	-4.1	30.	90.6	7	58	73	13	10	2	14	2		
Münzingen	721	4.0	1.8	16.2	10.	-5.4	29.	-7.1	29.	84.5	8	61	102	12	7	3	9	12		
Hechingen	520	5.2	1.4	15.4	24.	-4.0	28.	-6.5	30.	82.4	1	43	84	10	7	2	5	7		
Ulm (Wst.)	522	3.8	1.2	15.7	24.	-3.6	29.	-6.5	29.	90.6	5	45	96	14	5	1	17	3		
Lahr/Schw.	158	6.7	1.2	17.9	24.	-3.3	30.	-6.5	30.	88.6	9	33	49	17	10	4	17	3		
Wolfsch.	265	6.5	1.3	18.9	24.	-2.0	30.	-2.6	29.	87.5	9	65	62	11	9	2	10	3		
Albstadt-Ehingen	712	3.9		14.5	24.	-6.0	30.	-9.2	29.	81.4	6	60	107	10	6	3	12	4		
Ottoschwanden	442	5.7		15.9	24.	-0.1	14.	-1.5	28.	90.5	8	53	68	12	10	1	14	2		
Wellendingen																				
Enmendingen-Mündingen	201	6.2		18.3	24.	-3.2	30.	-5.1	30.	89.6	7	61	91	21	9	1	9	2		
Schönach	904	6.7		17.6	10.	-0.4	27.28.			71.4	3	143	12	10	6	3	2	9		
Tübingen	683	5.3	2.2	16.6	11.	-2.1	30.	-7.1	30.	84.4	7	131	102	12	10	5	1	5		
Tübingen (Kurpark)	700	5.4		16.6	10.	-2.2	28.			77.4	2	111	12	7	5	4	2	9		
Königsfeld-Schw.	767	4.4	2.1	19.0	10.	-4.9	30.			86.4	2	95	114	12	7	4	3	8		
Biberach/Rib.	534	4.4	1.3	16.6	24.	-2.8	29.30.	-5.3	29.	88.6	7	42	98	10	6	2	16	1		
Schönwald/Schw.	1031	6.7		19.0	2.10.	-2.0	27.			75.5	2	134	13	10	4	4	2	8		
Kippeneck (Wst.)	973	6.1	3.9	18.9	10.	-2.0	28.	-4.6	30.	67.4	5	53	102	10	8	2	9	3		
Oberrotweil I)	223	6.5	1.3	17.6	24.	-2.5	30.	-5.5	30.	88.6	4	34	71	11	10	1	16	3		
Sigmaringen	650	3.7	1.1	15.3	24.	-4.8	29.	-9.0	30.	89.6	5	52	113	17	6	2	14	3		
Lienetal bei Illingen	284	5.5	1.5	17.2	24.	-3.1	30.	-4.1	30.	90.6	2	42	74	19	10	1	16	3		
Villingen	698	3.8	1.4	19.2	10.	-6.6	30.	-11.2	30.	86.5	3	96	141	11	9	3	15	1		
Freiburg i. Br. Herdern	255	6.8	1.4	19.0	24.	-2.1	30.	-5.7	30.	88.6	5	47	66	20	8	1	18	1		
Bad Dürrenheim	718	4.5	2.4	19.2	10.	-5.0	30.	-3.5	30.	85.4	5	54	100	11	6	2	17	1		
Freiburg i. Br. (Wst.)	269	7.0	1.7	19.0	24.	-2.1	30.	-3.5	30.	85.6	6	50	78	19	9	1	17	1		
Sankt Margen	900	7.3	4.4	20.4	10.	-0.5	27.			69.4	5	70	12	9	3	3	1	8		
Mengen i. Br.	215	6.4	1.5	18.5	24.	-2.5	30.	-3.1	30.	89.6	7	31	57	11	10	1	18	1		
Aulendorf	571	4.3	1.7	16.8	24.	-4.0	29.	-6.0	30.	89.6	8	44	86	14	6	2	19	1		
Donaueschingen I)	677	4.1	1.8	19.0	10.	-6.4	30.	-8.8	30.	88.5	2	70	130	11	8	2	17	2		
Neustadt-Schw. I)	835	3.2	1.4	18.6	10.	-7.1	30.	-9.7	29.	85.4	9	92	94	12	9	3	8	5		

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Table 4 ctd.

Station	Höhe über NN m	Lufttemperatur in °C					Luftfeuchtigkeit					Niederschlag					Zahl der Tage					Sonnen- scheindauer in Std						
		Mittel	Abweichung	höchste	Datum	tieftste	Datum	tieftste an Feil halten	Datum	Bevoelung	Höhe in mm	Niederschlag in mm	0-1 mm	1-10 mm	10-15 mm	Sonne läng. 101 mm	Nebel 101 mm	Gewitter	regnete	heißer Tage	Sommertage	Fröstage	Eisstage	in Std	in Std	in Std		
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Uffenheim	340	4.4	0.6	14.4	24.	-3.0	30.	-3.7	29.	85	6.0	26	62	8	7	1			7	1	3	17			7		62	114
Nürnberg Kraftshot (Lugh)	310	4.7	1.0	16.0	24.	-3.8	29.	-4.6	29.	84	6.0	32	78	8	6	1			7	1	13			10				
Pommelsbrunn	368	3.9	0.6	14.5	24.	-4.7	29.	-4.8	29.	85	6.3	37	56	10	6	2	1		6	1	18			11				
Oberveitbach	498	2.8	0.5	14.0	24.	-5.1	29.	-6.3	29.	88	5.8	36	64	8	5	2	1		7	1	12			18				
Amberg	386	3.4	0.4	14.6	24.	-6.1	14.	-7.4	14.	86	6.6	31	72	6	5	2	1		7	1	19			12				
Rothenburg o.d. Tauber	406	4.4	1.1	14.7	24.	-2.5	30.	-4.5	15.	85	6.3	33	66	9	6	1			7	1	15			12				
Schwanau	372	3.1	0.2	15.5	24.	-5.9	14.	-9.1	14.	89	5.7	33	79	10	4	1	2	1	12	1	12			14			52	
Arnsbach-Eltherm	481	3.5		14.9	24.	-3.6	14.	-6.8	14.	90	6.5	38	90	7	6	1			11	1	20			15				
Roth b. Nürnberg	340	4.1	0.7	15.5	24.	-7.2	14.	-8.3	14.	85	6.0	38	90	7	6	1			14	1	19			11			63	134
Cham	420	3.8	0.7	15.9	24.	-3.1	28.29.	-4.7	29.	84	5.7	29	69	7	4	1			8	1	2			12				
Parberg-Opf.	542	3.2	0.9	12.3	23.	-4.0	29.	-4.7	29.	90	6.7	34	62	9	8	1	1	1	14	1	18			12				
Hollenstein-Kraftwerk	1437	4.1		15.1	1.	-5.0	27.	-5.0	27.	54	4.3	115		6	6	3	5	4	12	1	4			13			150	
Gmber-Alber (Wst)	366	3.6	0.6	15.8	24.	-4.0	29.	-5.0	30.	89	6.4	30	77	11	4	1	1		10	1	16			10			44	107
Regensburg (Wst)	422	4.5	1.0	15.7	24.	-3.5	29.30.	-6.1	29.	85	6.1	25	58	8	6	1			3	2	18			10			65	114
Weidenburg Bay (Wst)	397	4.0		17.0	24.	-4.8	14.	-6.5	14.	88	6.5	33	75	10	6	1			21		18			10				
Fischlari	425	4.1	0.6	16.1	24.	-4.9	30.	-5.9	30.	90	6.3	30	73	8	6	1			14	1	16			8			33	
Nordhagen	313	3.7	0.8	16.6	24.	-5.3	14.	-7.7	14.	87	6.5	51	86	6	4	1			7	1	19			13			59	
Metten	417	4.1	1.0	16.4	24.	-3.4	29.30.	-4.0	29.	92	7.2	35	71	7	5	1			12	1	23			6			35	
Koching	645	3.5	1.3	17.2	7.	-5.5	30.	-5.5	30.	80	4.6	53	76	6	4	2	1		11	1	9			16				
Freysing's Wald	410	4.2	1.2	16.7	24.	-3.3	29.	-4.0	29.	87	6.5	25	57	8	4	1	1		12	1	17			7				
Müllersdorf-Nib	516	3.6	0.8	15.7	24.	-4.5	30.	-8.0	30.	84	6.7	32	65	14	6	1			17	1	22			10			35	
Karlsruhe-Neuhof	374	3.9	0.9	16.6	24.	-5.6	14.	-11.8	14.	89	6.8	40	95	14	6	1			19	1	19			13			38	
Karlsruhe	450	3.9		17.3	24.	-5.1	14.	-7.1	14.	87	6.7	39	85	10	5	1			19	1	18			8				
Mannberg	435	4.2	0.9	16.2	23.	-4.0	14.	-5.3	14.	83	6.5	40	85	7	6	1	1		13	1	17			8			75	153
Dillingen-Donau	409	4.3	1.3	16.4	24.	-4.5	14.	-7.2	14.	84	6.2	38	63	8	4	1	1		12	1	16			9			49	
Passau-berthaus (Wst)	436	3.9	0.7	17.1	24.	-5.3	14.	-6.4	14.	86	6.1	42	95	12	6	1			9	1	17			9				
Künhausen	490	4.1	0.9	16.6	24.	-2.0	16.	-2.8	24.	82	5.7	65	130	13	6	2			13	1	15			7			53	96
Falkenberg Kr. Rottal Inn	461	4.0	0.7	16.5	24.	-4.8	14.	-6.7	14.	88	6.2	44	92	8	7	2			15	1	17			10			50	91
Augsburg-Mühlhausen (Wst)	467	3.7	0.9	17.0	24.	-3.7	29.	-6.3	14.	89	6.5	44	94	12	6	2			13	1	18			11			53	
Weihenstephan (AMBI)	360	4.5		18.0	24.	-4.5	29.	-6.5	29.	84	6.3	29	51	6	5	2			5	1	17			10			56	91
Sombach Inn	520	3.7	0.9	13.7	23.	-5.0	14.	-7.8	14.	85	5.8	40	73	14	7	2			13	1	14			15			47	91
Kumbach-Eltherm	401	4.0	0.8	18.0	24.	-4.4	14.	-7.8	14.	88	6.6	38	75	10	5	2			13	1	18			10			59	109
Mühlhof Inn (Wst)	515	3.9	0.9	17.2	24.	-5.6	14.	-6.7	14.	88	6.2	51	96	8	6	3			13	1	17			12			61	101
München-Nymphenburg	527	3.4	0.5	17.4	24.	-6.1	14.	-10.5	14.	89	5.9	41	72	9	6	1			22	1	13			16				
München-Kiem (Lugh)	585	3.8		15.6	24.	-3.0	14.	-4.6	14.	89	6.1	37	72	9	6	1			18	1	14			16				
Kaulering	573	3.4		17.2	24.	-4.0	14.	-6.5	14.	89	5.7	42	67	14	6	2			20	1	14			11			70	
Ebersberg	487	3.9	0.5	17.4	23.	-5.4	14.	-9.6	14.	87	6.2	34	58	7	6	2			17	1	18			11			124	135
Meinungen	595	4.0	1.3	15.5	24.	-5.0	30.	-5.8	30.	88	6.3	45	82	12	4	2			15	1	20			20			112	134
Kaulbeuren	720	3.9	1.0	15.0	10.	-6.5	19.	-8.4	30.	84	5.6	47	75	6	5	1			13	1	12			17			146	130
Kaulbeuren	665	4.3	1.3	17.8	7.	-4.4	30.	-9.5	30.	83	5.2	43	67	6	5	1			16	1	10			15			150	
Altenkam	611	4.1	1.1	16.6	23.	-3.4	14.	-5.1	14.	83	5.7	35	37	7	5	1			12	1	11			11				
Koitzing	446	4.4	1.0	18.7	23.	-6.1	14.	-6.9	14.	87	6.1	38	63	8	5	1	1		9	1	6			11			124	135
Hohensteinberg (Observatorium)	977	6.7	4.2	17.3	10.	-2.5	28.	-6.3	28.	64	4.8	38	63	8	5	1	1		20	1	6			20			112	134
Rosenheim	705	4.1	1.8	17.4	10.	-5.8	30.	-8.2	30.	84	4.9	54	44	9	8	1	1		8	1	5			14			146	130
Kempten (Wst)	1832	4.6	5.2	14.8	1.	-6.3	27.	-8.2	28.	53	4.2	30	42	7	5	1	1		9	1	4			22			150	
Wendstein (Wst)	595	3.3	1.2	18.3	7.	-6.2	30.	-8.6	30.	83	2.8	52	48	7	6	2	1		4	1	4			13				
Reit im Winkl	796	5.3	3.1	18.0	7.	-5.3	28.	-10.2	30.	74	4.0	74	40	9	5	2	1		4	1	4			21			111	122
Schwangau-Horn 1)	719	3.7	2.0	19.2	12.	-6.2	30.	-10.2	30.	83	4.7	48	42	7	5	2	1		4	1	4			21			151	111
Garmisch-Partenkirchen (Wst)	2960	-3.2	3.8	6.6	1.	-14.3	27.	-9.1	30.	62	4.4	92	69	5	7	4	1		6	1	7			16			64	113
Zugspitze (Wst)	810	4.2	2.4	20.1	6.	-5.9	28.	-9.1	30.	78	4.3	89	77	9	8	1	1		4	1	5			12				

Table 4 ctd.

(air temperature in °C)

November 1984

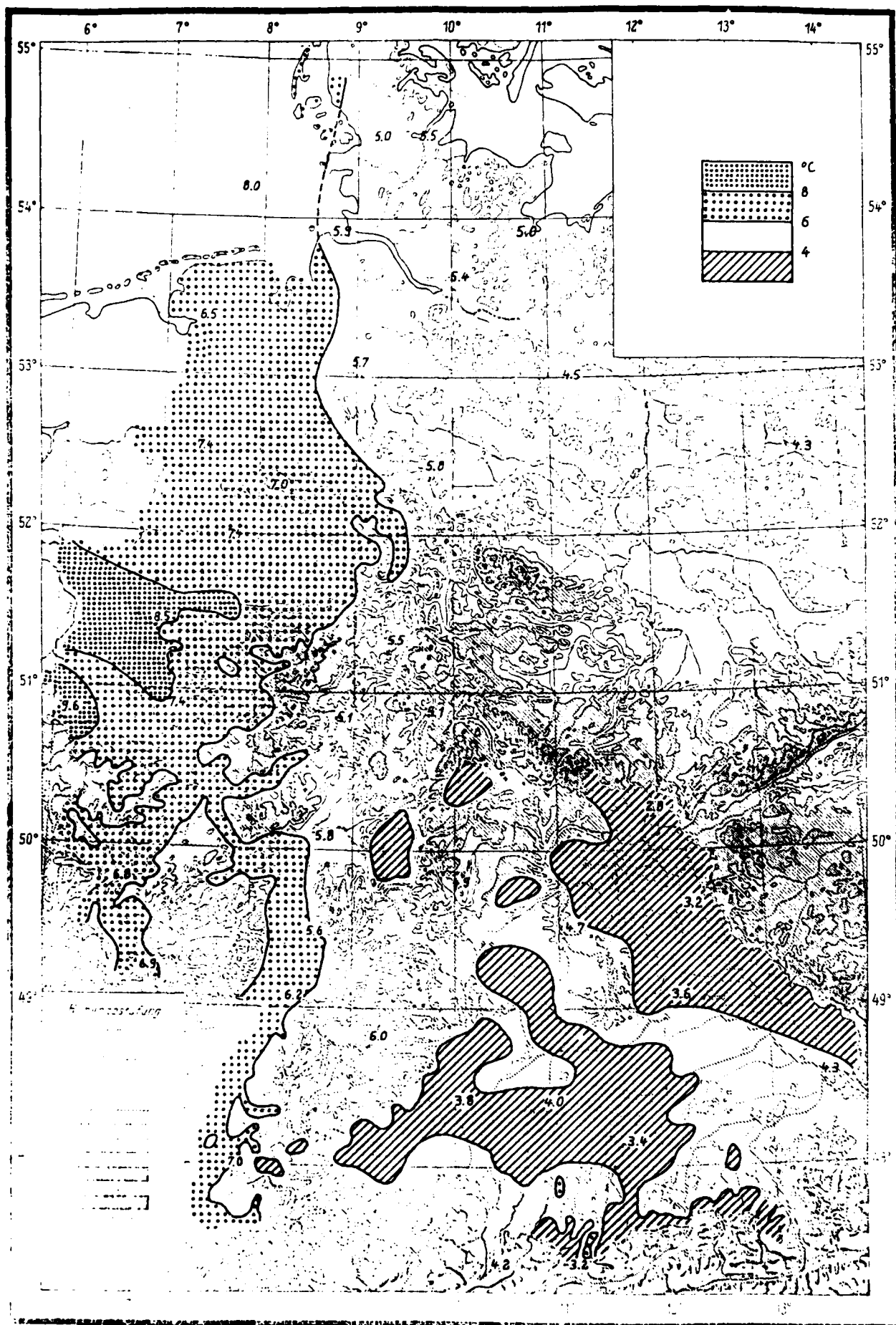


Table 4 ctd. (precipitation in % of 1931 - 1960 mean values)

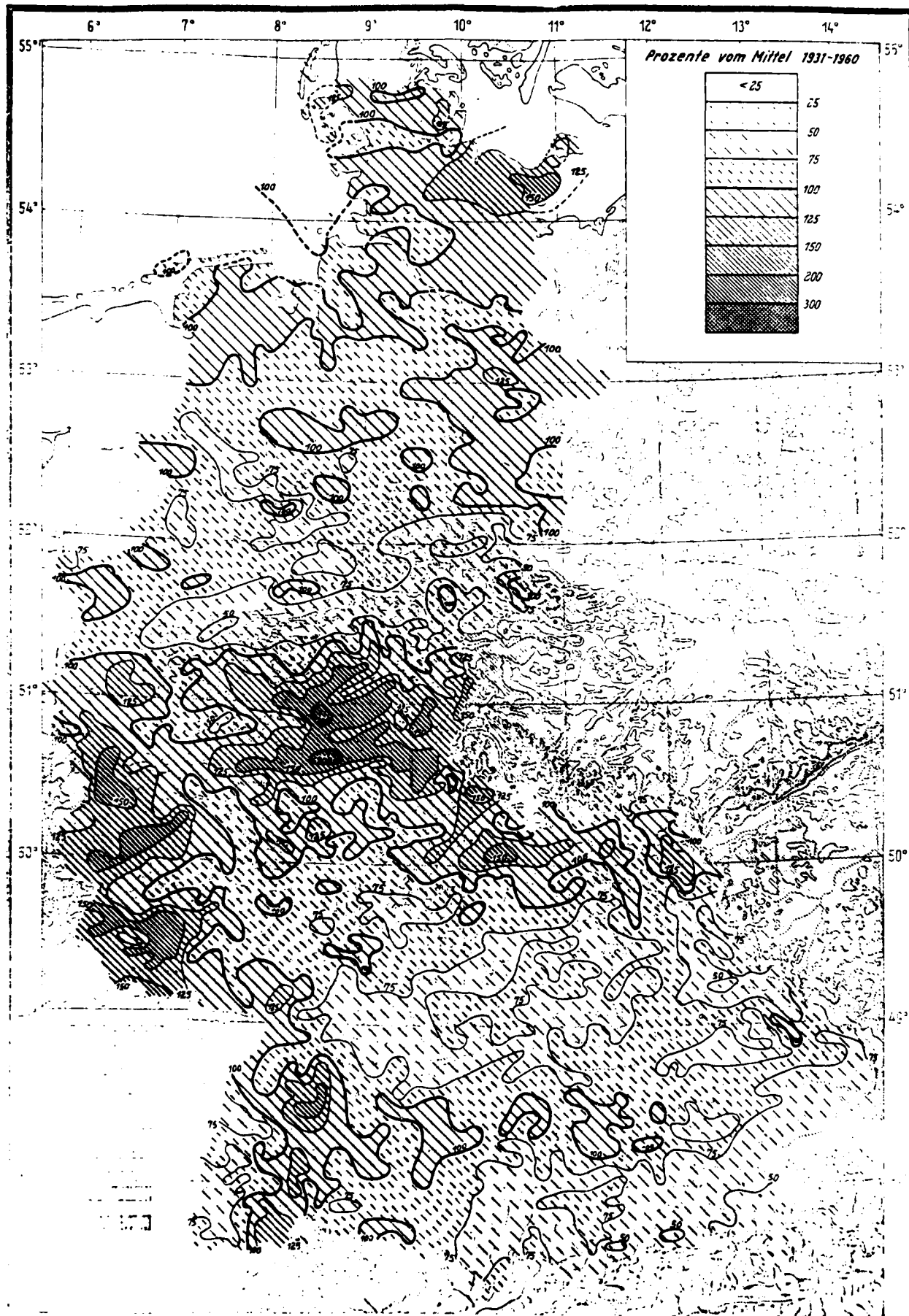


Table 4 ctd. (precipitation in mm)

November 1984

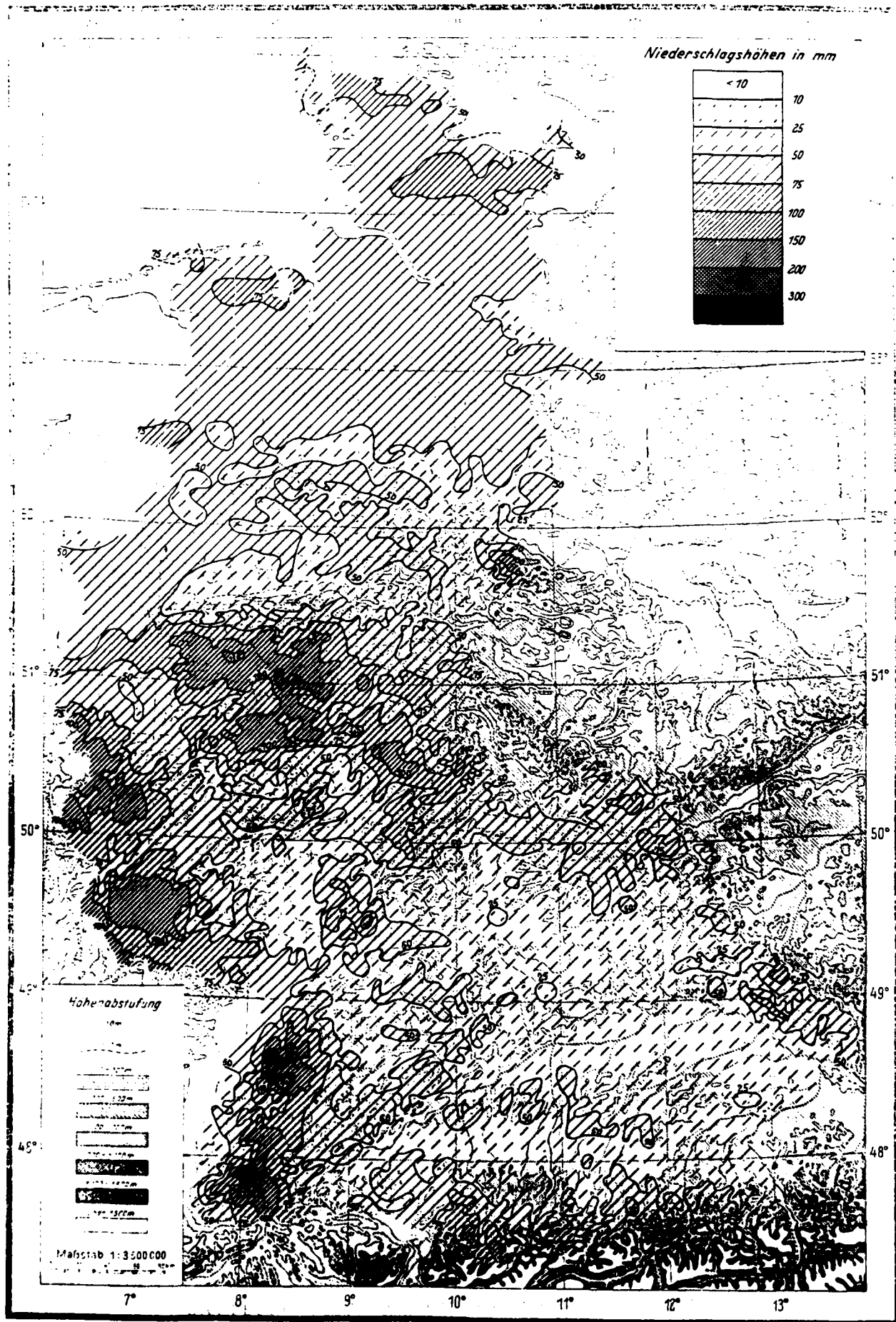


Table 4 ctd. (air temperature in % of 1931 - 1960 mean values)

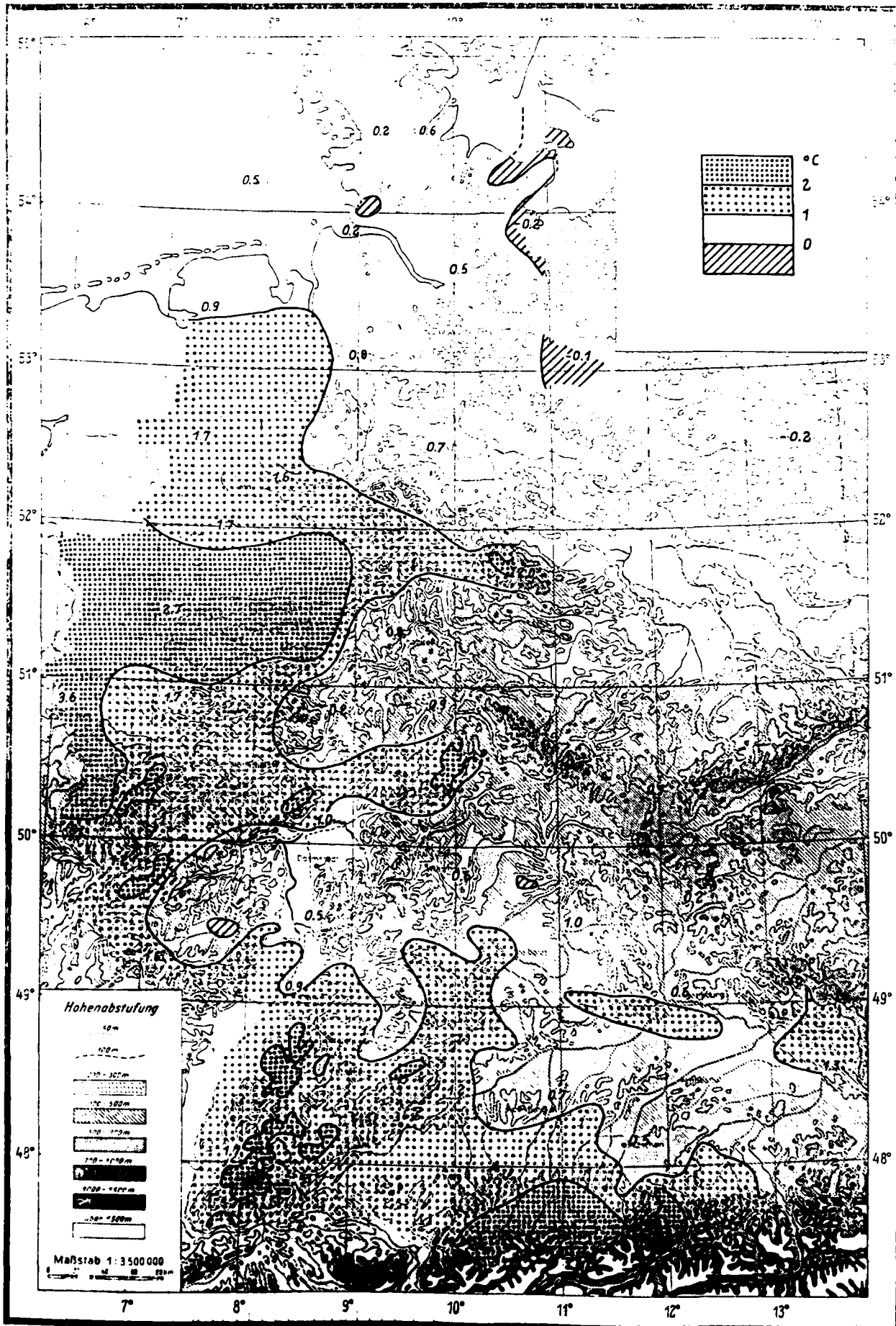


Table 5 Meteorological/Climatological Data for the Areas of Investigation (April 1985)

April 1985

Monatswerte

Station	Höhe über NN m	Lufttemperatur in °C					Niederschlag Höhe in mm	Niederschlag in mm	Zahl der Tage					Sonnen- schein- dauer in h															
		Mittel	Abweichung	höchste	Datum	tieftste	Datum	höchste	Datum	Nebel	Gewitter	halbe	Tage	Sommer- Tage	Frost- Tage	Eis- Tage	Sonnen- schein- dauer in h												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
Schleswig-Holstein																													
List auf Sylt (Wst)	26	5.4	-1.0	12.1	19.	-0.9	25.	-1.1	19.	86	5.8	46	135	20	12	1	6	11	1	1	1	1	1	1	1	1	1	119	58
Leck (BW)	7	6.0	-0.2	14.5	5.18.	-2.8	24.	-5.5	24.	86	5.8	47	135	23	11	1	4	8	1	1	1	1	1	1	1	1	1	106	56
Flensburg (Schäferhaus)	41	5.8	-0.5	15.0	5.	-1.8	24.	-5.5	24.	85	6.1	65	123	20	13	1	4	6	1	1	1	1	1	1	1	1	1	114	
Wkt/Fohl	1	6.0		15.0	5.	-1.8	24.	-5.5	24.	87	6.3	54	138	19	13	1	4	7	1	1	1	1	1	1	1	1	1	118	
Stoltebull 1)	28	5.9	-0.1	16.0	19.	-2.0	24.	-3.7	24.	85	5.7	56	124	19	16	1	6	3	1	1	1	1	1	1	1	1	1	116	61
Schleswig (WA)	43	6.3	-0.2	16.5	17.	-1.9	24.	-3.6	24.	83	6.1	60	111	21	15	1	6	7	1	1	1	1	1	1	1	1	1	136	
Westermarke/Hof/Felmann 1)	1	5.8	-0.5	14.5	19.	1.0	11.	0.3	14.	78	5.4	51	150	20	12	1	5	2	1	1	1	1	1	1	1	1	1	103	
Schwesing (BW)	28	6.1	-0.1	15.5	19.	-3.7	24.	-6.6	24.	85	5.9	44	94	18	13	1	5	9	1	1	1	1	1	1	1	1	1	122	64
Kiel-Kronshagen (Wst)	17	6.9	0.0	18.2	4.	-1.4	24.	-1.1	22.	51	116	51	116	21	13	1	6	3	1	1	1	1	1	1	1	1	1	123	
Holtenau	10	6.4	-0.2	18.1	4.	0.2	7.	-4.6	24.	82	5.5	44	76	17	11	1	5	4	1	1	1	1	1	1	1	1	1	108	
Erfde 1)	18	6.9	0.2	16.7	19.	-3.4	24.	-6.4	24.	79	5.8	55	100	20	14	1	6	4	1	1	1	1	1	1	1	1	1	117	
Holten (BW)	10	6.5		17.2	17.	-3.2	24.	-6.4	24.	84	6.3	39	100	15	10	1	3	2	1	1	1	1	1	1	1	1	1	108	
Sankt Peter-Ording	4	6.6	-0.1	15.3	5.	0.2	24.	-5.1	24.	80	6.3	48	89	20	13	1	4	2	1	1	1	1	1	1	1	1	1	117	
Rendsburg	8	6.9	0.1	17.5	19.	-1.8	24.	-6.1	24.	79	5.9	49	109	21	15	1	5	5	1	1	1	1	1	1	1	1	1	109	55
Lensahn	14	6.7	-0.3	18.5	4.	-0.9	24.	-4.0	24.	80	5.9	43	81	18	10	1	4	11	1	1	1	1	1	1	1	1	1	117	
Heide/Holstein	12	7.0	0.0	17.1	5.	-2.4	24.	-3.0	24.	88	5.9	34	87	21	10	1	4	11	1	1	1	1	1	1	1	1	1	109	55
Helgoland (Wst)	4	5.3	-0.9	10.3	19.	0.9	26.	-0.8	17.	86	5.9	34	87	21	10	1	4	11	1	1	1	1	1	1	1	1	1	117	
Plön (See) 1)	24	6.6	-0.3	16.6	5.	-0.7	29.	-1.0	24.	82	5.5	66	135	23	15	1	4	2	1	1	1	1	1	1	1	1	1	132	
Enin	50	6.7	-0.4	17.8	4.	-0.7	24.	-2.2	24.	83	5.4	65	125	22	18	1	4	2	1	1	1	1	1	1	1	1	1	135	
Holtenstedt	80	6.6	-0.3	16.5	5.	-2.0	24.	-4.0	24.	84	6.1	62	115	20	12	1	5	2	1	1	1	1	1	1	1	1	1	128	66
Neumünster	21	7.3	-0.1	18.7	5.	-2.0	24.	-3.9	24.	79	5.1	68	128	21	16	1	5	5	1	1	1	1	1	1	1	1	1	110	
Heide, Kr. Dithmarschen 1)	2	7.1	0.0	17.6	19.	-0.5	24.	-2.6	24.	82	5.3	51	111	19	10	1	4	5	1	1	1	1	1	1	1	1	1	107	
Lavenwunde 1)	9	7.1	0.0	19.2	4.	0.0	26.	-0.1	26.	77	4.9	61	142	19	15	1	4	2	1	1	1	1	1	1	1	1	1	100	
Wahlstedt	45	7.2	0.3	17.5	5.	-2.0	24.	-4.5	24.	79	6.3	90	22	19	2	6	1	3	1	1	1	1	1	1	1	1	1	128	66
Lubeck (Wst)	14	6.9	-0.8	19.3	4.	-2.2	24.	-7.0	24.	81	5.5	70	146	21	19	1	6	1	3	1	1	1	1	1	1	1	1	117	
Branden-Hornerkirchen 1)	9	7.2	0.3	18.0	5.	-2.1	24.	-4.6	24.	85	6.0	62	135	23	15	1	6	1	3	1	1	1	1	1	1	1	1	117	
Glückstadt 1)	2	7.5	-0.1	18.0	19.	-1.0	24.	-2.9	24.	82	5.4	65	133	21	15	1	6	1	3	1	1	1	1	1	1	1	1	110	
Quickborn (Fernmeldebetriebsgruppe)	13	7.5	0.3	18.3	19.	-3.2	24.	-6.3	24.	80	5.5	65	133	21	15	1	6	1	3	1	1	1	1	1	1	1	1	107	
Ahrensb. Wulfsdorf (AMBf)	46	7.2	0.1	19.4	4.	-1.3	24.	-4.5	24.	79	5.9	72	126	21	18	1	6	1	3	1	1	1	1	1	1	1	1	100	
Grambek	27	7.0	-0.3	21.0	4.	-2.4	24.	-3.7	24.	82	5.4	82	171	20	19	2	2	1	2	1	1	1	1	1	1	1	1	124	
Hamburg-Fuhlsbüttel (Flugh.)	13	7.8	0.3	19.0	4.	-1.8	24.	-3.6	24.	79	5.6	60	115	21	15	1	5	2	1	1	1	1	1	1	1	1	1	121	65
Bremerhaven (Wewa)	7	7.8	0.1	18.0	19.	0.4	17.	-0.9	17.	81	5.7	52	106	17	11	1	4	4	1	1	1	1	1	1	1	1	1	139	74
Bremen (Flugh.)	4	8.0	0.2	19.8	4.	-2.0	24.	-5.2	24.	78	5.6	40	80	18	11	1	5	2	1	1	1	1	1	1	1	1	1	129	70
Niedersachsen																													
Cuxhaven (Wst)	5	7.3	-0.1	19.0	19.	0.9	28.	-2.0	17.	83	6.0	43	91	17	9	1	3	5	1	1	1	1	1	1	1	1	1	135	70
Wangerooge	3	6.9	-0.2	18.0	19.	0.6	27.	0.2	27.	85	7.4	38	93	19	8	1	2	7	1	1	1	1	1	1	1	1	1	118	61
Langeoog	5	7.0	-0.1	18.0	19.	0.5	26.	-0.2	26.	85	5.9	30	71	20	8	1	2	4	1	1	1	1	1	1	1	1	1	118	61
Norderney (Wst)	11	7.1	-0.1	17.0	19.	1.6	26.	1.0	26.	83	5.7	29	71	21	9	1	1	5	1	1	1	1	1	1	1	1	1	118	61
Boddenka	27	7.4	0.0	18.7	19.	-0.5	24.	-0.7	24.	81	6.0	66	129	19	13	1	6	2	1	1	1	1	1	1	1	1	1	124	
Wilhelmshaven	1	7.5	-0.1	18.6	19.	0.4	24.	-2.8	24.	79	5.3	69	138	18	14	1	4	3	1	1	1	1	1	1	1	1	1	124	
Jever (BW)	7	7.5	0.1	18.6	19.	-1.4	24.	-5.3	24.	75	5.8	43	84	19	10	1	3	2	1	1	1	1	1	1	1	1	1	124	
Jork																													
Bremervörde	5	7.7	0.2	20.1	4.	-3.1	24.	-5.9	24.	79	5.5	63	117	18	13	1	2	2	1	1	1	1	1	1	1	1	1	117	
Aurich	4	7.3	0.1	18.6	19.	-1.5	24.	-4.5	24.	83	6.7	49	98	22	11	1	3	2	1	1	1	1	1	1	1	1	1	117	
Emden-Neserland (Wst)	5	7.7	-0.1	17.7	4.19.	0.0	24.	-3.0	24.	78	6.2	39	85	18	10	1	3	4	1	1	1	1	1	1	1	1	1	125	65

1) Sonnenscheindauer nicht direkt am Standort der Station registriert. *) vom Mittel 1931-1960. **) vom Mittel 1951-1960.
Abkürzungen: WA = Wetteramt, Wewa = Wetterwarte, Wst = Wetterstation, AMBF = Agrarmeteorologische Beratungs- und Forschungsstelle, BW = Bundeswehr, Kstl = Klimahauptstation, Nst = Niederschlagsstation

Table 5 ctd.

Station	Höhe über NN m	Lufttemperatur in OC					Richtungs- Wind					Zahl der Tage					Sonnen- stunden m Std												
		Abweichung	höchste	Datum	tiefste	Datum	tiefste im Feld boden	Datum	Höhe in m	Richtung	Niederschlag			Schnee				Niede	Gewitter	heitere	stille	Regen	Frosttage	Frost					
											mm	cm	mm	cm	mm	cm									mm	cm			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
Wuppertal-Buchenhofen	128	8.7	0.4	23.3	4.	-2.4	24.	-3.4	24.	76	5.6	101	129	19	15	3	4	.	.	.	2	4	13	136	91
Ludenscheid	444	6.5	-0.7	20.9	4.	-3.0	26.	-4.5	26.	77	6.0	125	129	19	16	4	8	4	5	3	2	16	140	82	
Düsseldorf (Südruddhof)	37	9.6	-0.1	24.5	4.	-0.9	26.	-7.3	26.	83	5.0	65	127	18	16	3	13	13	21	.	2	18	.	.	.	14	125	78	
Kahler Asten (Wst.)	939	3.4	-0.5	19.2	4.	-6.4	26.	-7.3	26.	75	5.6	124	111	22	18	3	13	13	21	.	2	18	.	.	.	14	141		
Köln-Wahn (Flugh.)	73	9.3	0.1	24.6	4.	-3.5	26.	-7.3	26.	74	5.3	132	186	20	16	4	5	1	4	1	12	.	.	.	4	141			
Siegen	263	7.9	0.3	23.6	4.	-2.0	26.	-3.4	24.	74	5.3	80	127	18	13	2	3	.	.	3	11	.	.	.	2	142	80		
Aachen (Wst.)	202	8.8	-0.1	23.6	4.	-1.1	24.	-3.4	24.	66	5.7	63	124	18	13	2	3	.	.	3	2	14	.	.	1	154			
Bonn-Friedrich	62	9.9	0.3	24.1	4.	-0.6	24.	-4.6	24.	72	5.8	58	129	20	14	1	4	.	.	1	13	.	.	.	3	144			
Euskirchen	176	8.6	0.1	23.9	4.	-1.2	26.	-2.1	26.	72	5.8	114	131	19	17	4	6	3	6	1	4	10	.	.	6				
Röthen	440	6.4	-0.3	20.5	4.	-3.0	24.	-6.6	26.	79	5.1	101	131	17	13	2	2	.	.	.	.	.	.	.	.
Süstig	505	6.2		21.0	4.	-4.5	24.	-8.0	24.26.	79	5.9	101	131	17	13	2	2	.	.	.	.	.	.	.	.
Hessen																													
Arolsen	220	7.3	-0.3	22.4	4.	-3.1	26.	-5.6	26.	72	5.5	49	94	17	15	.	3	1	1	1	10	.	.	.	5				
Witzenhausen	133	9.3	-0.2	23.2	4.	-3.0	26.	-4.7	26.	76	5.7	50	100	19	11	4	2	9	3	3	11	.	.	.	5				
Willingen/Upland	580	5.1	-0.2	21.0	4.	-4.1	26.	-5.4	26.	77	6.1	115	129	21	16	4	9	3	3	3	2	11	.	.	11	132	79		
Kassel (Wst.)	331	7.8	-0.5	21.6	4.	-1.6	26.	-4.1	26.	72	5.8	50	102	18	12	1	4	2	1										

Table 5 ctd.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Friedenweck	924	5.0		21.8	4.			-5.2 27.		73 4.8	139	18 15	5 10					4	1		5 10							158
Prallendort Brunnhausen	638	5.5	-1.5	21.0	4.			-5.8 25.		74 5.1	81 147	18 14	2 4					1	1		2 4 13							
Beimgarten (BW)	212	10.4		25.6	4.			-3.2 25.		60 5.0	57 136	14 12	1 2								2 4 10							165
Hinterzarten	883	4.6	-0.4	20.6	4.			-7.0 27.		78 5.0	191 242	18 15	8 9					7			4 11							161
Obermünster	545	8.2		23.6	4.			-1.5 25.		68 5.3	141 164	17 14	5 5					2	5		1 4 13							137
Feldberg/Schw. (Wst)	1486	1.3	-0.1	12.6	4.			-8.6 28.		82 6.1	214 193	17 16	11 17					30	20		3 2 18							143 93
Lenzkirch	818	5.0	-0.4	21.8	4.			-5.5 27.		76 4.8	153 222	19 14	6 8					5	3		6 12							163 107
Aach, Kr. Konstanz	478	7.9	-0.3	24.6	4.			-3.6 25.27.		74 5.1	67 146	17 13	2 3								1 3 14							
Stöckach	475	7.2		22.9	21.			-3.1 25.		73 5.0	100 196	17 14	4 1								3 4 13							
Meinenschwand	885	4.6	-0.2	20.3	4.			-7.9 27.		75 5.3	236 219	17 17	11 10					6			2 3 14							167
Schilke	983	4.4	0.0	20.2	4.			-5.0 25.		80 4.5	162 188	19 17	8 9					1	2		1 5 12							142
Bakenweiler	412	10.0	0.8	25.2	4.			-1.6 27.		63 4.9	79 111	16 14	1 2					1	2		1 5 12							186 103
Ravensburg 1)	435	8.5	0.1	23.2	4.			-4.5 25.		73 5.2	83 124	16 15	3 3					1	1		2 2 13							
Friedrichshausen	852	5.7	-0.5	21.2	4.			-4.0 25.		78 5.0	171 151	18 17	8 11					5	3		5 12							
Sankt Blasien 1)	1008	4.7	-0.5	18.6	4.			-6.6 27.		71 5.0	171 206	18 17	6 11					8	4		3 11							167
Hochenschwand	600	8.5	-0.3	22.6	21.			-1.0 25.		67 4.8	90 176	15 14	3 1								4 10							
Radolfzell	691	8.1	-0.4	22.3	21.			-5.0 25.		73 5.5	167 153	17 15	7 9					4	1		1 2 17							167 109
Isny	443	8.7	0.1	23.5	21.			-2.0 25.		66 5.4	96 192	15 15	3 5								4 3 12							
Konstanz (Wewal)	383	8.5	0.1	24.2	4.			-3.5 25.		71 4.9	126 214	17 14	5 3								1 3 9							
Wutöschingen	400	8.4	-0.2	24.9	4.			-2.1 27.		72 5.2	148 183	19 15	4 3					1	4		3 3 15							170
Schopfheim	408	8.3		23.8	4.			-2.7 25.		71 5.5	95 158	16 16	3 3								2 3 15							
Erstkirch Wolfzinnen	264	9.2		26.0	4.			-3.1 27.		69 4.9	74 140	17 12	3 1					1			3 5 8							
Friedlingen	330	8.8	-0.7	25.2	4.			-3.4 27.		73 4.7	166 218	17 15	5 3								5 10							
Walldorf	723	5.9		21.9	4.			-5.0 27.		74 5.2	167 194	17 16	5 8					2	11		3 5 14							161
Reichenfelden	287	9.9	0.1	25.8	4.			-1.3 27.		65 5.0	129 205	15 14	6 2								1 2 5 13							161
Bad Säckingen	355	9.0		24.8	4.			-1.1 27.		65 4.8	165 262	16 15	5 2								1 4 12							
Bayern																												
Osseim/Rhon	315	7.5		23.0	21.			-4.7 26.		75 6.1	39 111	15 10						1			15							
Tesselschütz/Wickendorf	560	5.1	-0.9	20.5	21.			-5.5 26.		81 5.5	91 149	18 12	3 8					3	2		3 16							
Langenleiten	520	7.3	-0.3	21.4	21.			-4.5 26.		69 5.4	69 108	17 14	2 4								3 14							
Hof-Hohenhaus (Wst)	557	5.5	-0.2	20.9	5.			-3.8 26.		78 5.8	51 106	16 12	2 7					5	2		3 15							145 81
Göbing (Wst)	337	7.8	-0.3	24.3	21.			-5.2 26.		76 5.6	47 112	18 14						4	1		3 4 15							146 76
Kronach	305	7.7	0.3	23.3	21.			-3.1 26.		71 6.5	55 112	16 13	2 3					1	1		1 19							
Bad Kissingen (Wst)	262	8.5	-0.1	24.4	21.			-2.9 26.		68 5.4	53 120	16 13							2		1 3 11							147 80
Sch(Ost 1)																												
Oschmitz	553	5.4	-0.6	22.1	5.			-4.9 27.		79 5.5	72 114	17 13	2 8					3	3		1 3 13							
Kahl/Main	110	9.8	-0.1	24.5	4.			-0.7 26.		69 5.5	42 84	16 10							1		2 3 14							
Schwenfurt	240	8.6	-0.5	24.7	21.			-3.8 26.		71 4.8	33 92	16 9									1 6 11							
Stemnach b. Lohr/Main	151	8.7	0.5	23.9	21.			-2.1 26.27.		72 5.4	58 116	16 13									2 8							
Fichtelberg/Ost.	705	5.0	-0.9	20.5	5.			-4.2 26.		77 5.7	74 109	20 14	2 11					4	9		2 1 15							142 79
Bayreuth	330	7.3	-0.3	23.5	21.			-3.0 27.		77 5.8	46 105	16 13						3	1		5 1 12							160 94
Baden (Wst)	239	8.5	0.1	24.3	21.			-2.7 26.		71 5.8	39 98	16 11									3 18							
Friedenau	515	5.2	-0.5	22.1	5.			-5.2 27.		72 5.4	42 105	17 11						6	2		1 3 14							
Wurz/Jung (Wewal)	268	8.8	-0.5	23.8	21.			-2.9 27.		67 5.3	31 69	15 10	2 4					2			1 5 12							167 85
Gebweinsten	450	7.2	0.0	23.0	21.			-4.0 26.		68 4.8	62 115	14 13	2 4								1 5 17							
Alfgraben	750	5.5	0.0	20.0	5.			-6.3 28.		78 5.5	61 86	17 13	1 10					4	5		1 5 17							
Miltenberg	127	9.0		22.8	4.			-1.3 25.		69 5.4	57 112	16 13	2 1								3 14							158 87
Walden/Ost (Wst)	438	7.3	-0.1	22.4	5.			-4.1 27.		73 5.4	38 93	16 11						3	1		4 14							161 101
Erlangen	270	8.4	0.1	23.7	5.			-1.7 25.		69 4.9	45 107	15 8									1 4 13							
Neustadt/Ansb.	333	8.3	0.0	24.1	21.			-2.0 26.		71 5.1	31 78	15 11	2 3					1	1		1 4 13							
Uffenheim	340	8.6	0.3	23.9	21.			-4.8 26.		65 5.3	23 56	14 7									5 12							

April 1985

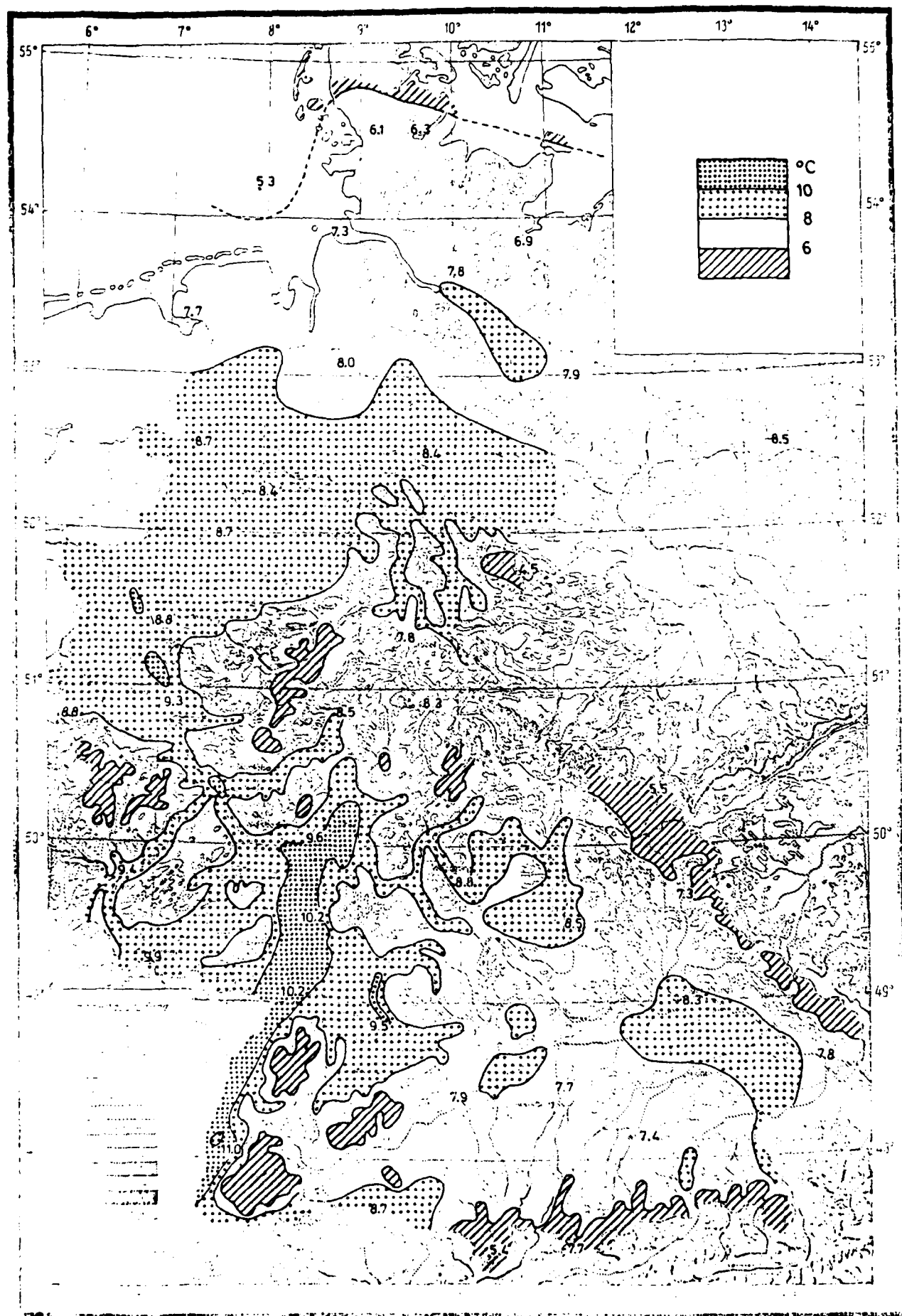


Table 5 ctd. (precipitation in mm)

April 1985

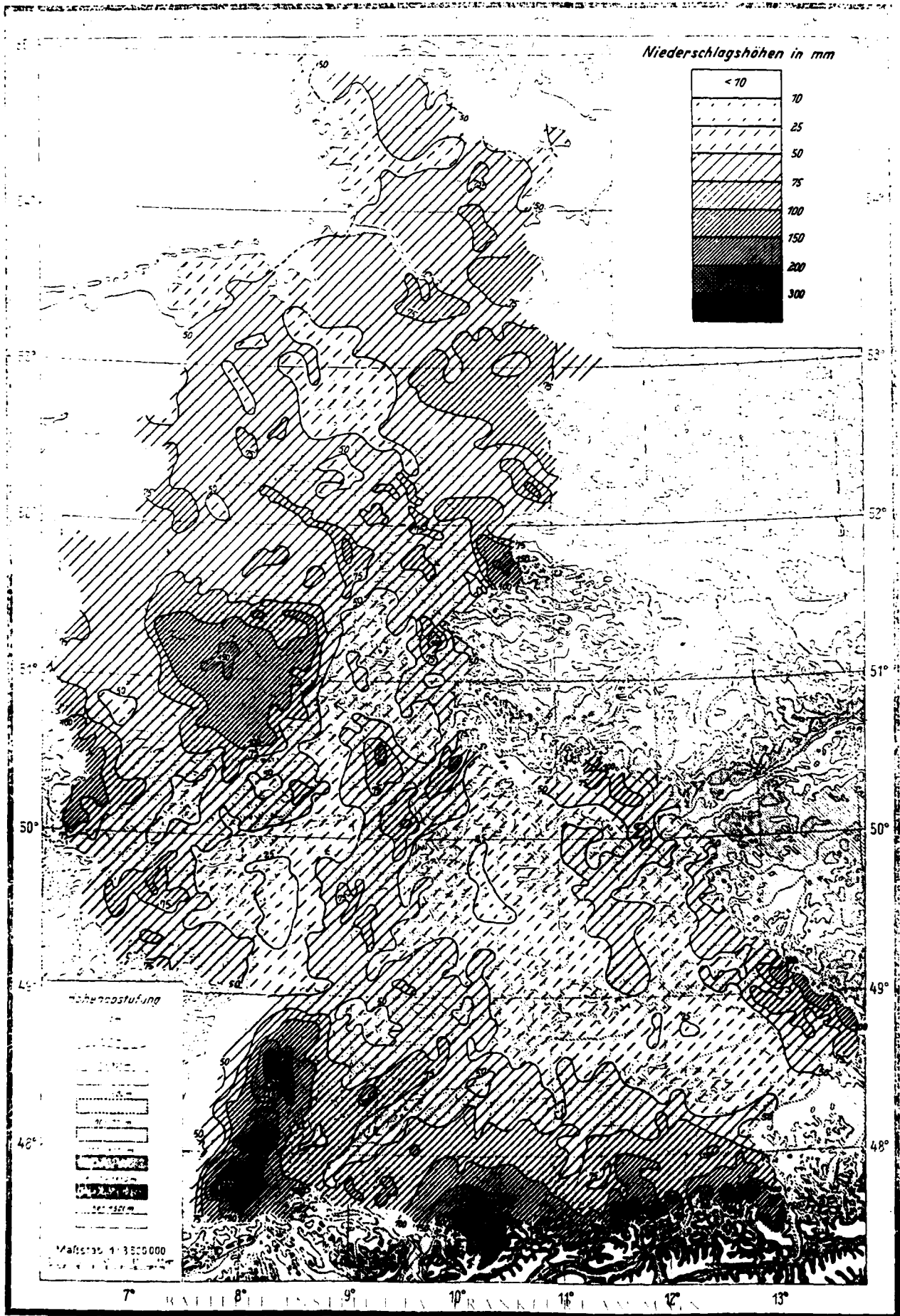


Table 5 ctd. (precipitation in % of 1931 - 1960 mean values) April 1985

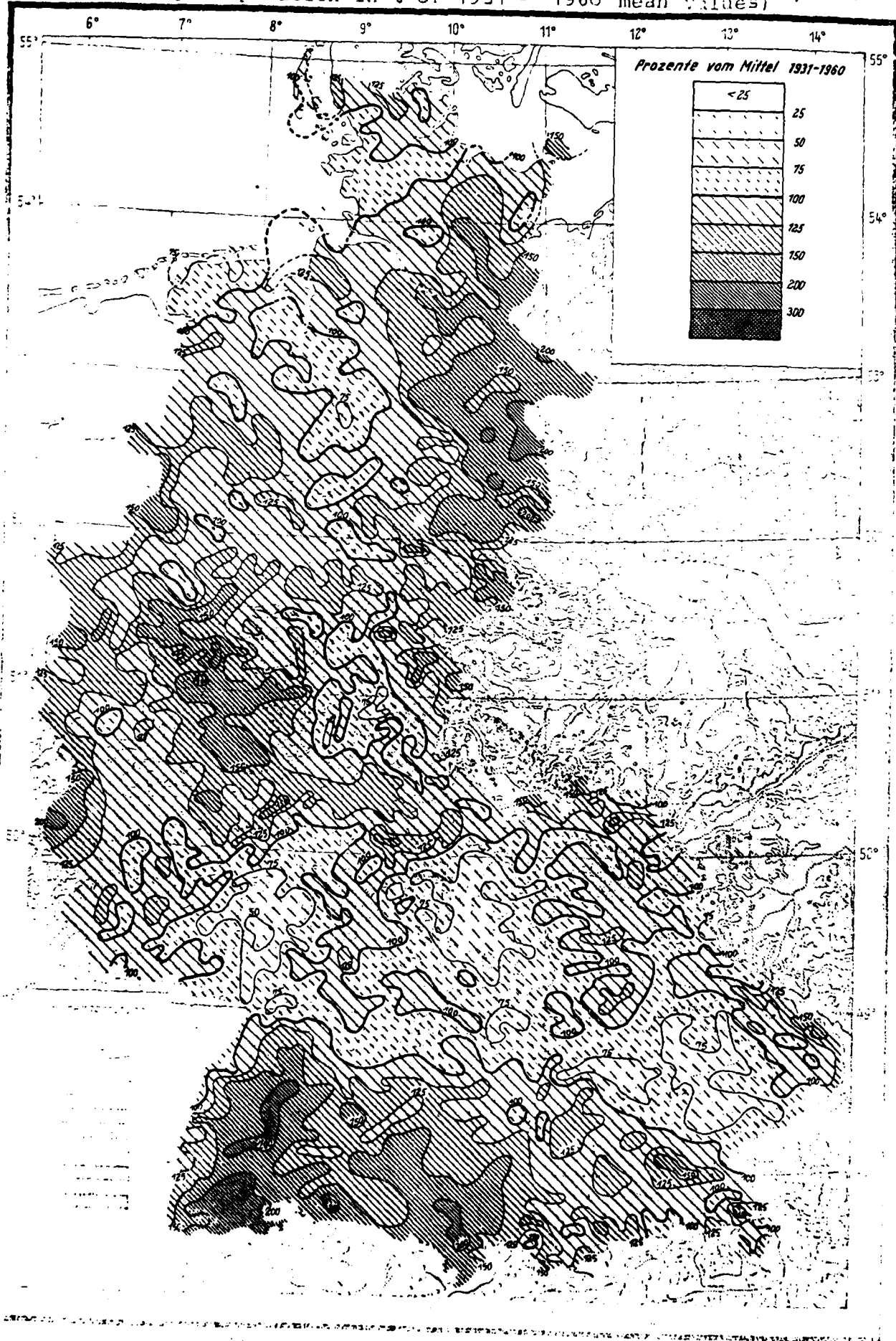


Table 5 ctd. (air temperature in % of 1931 - 1960 mean values) April 1985

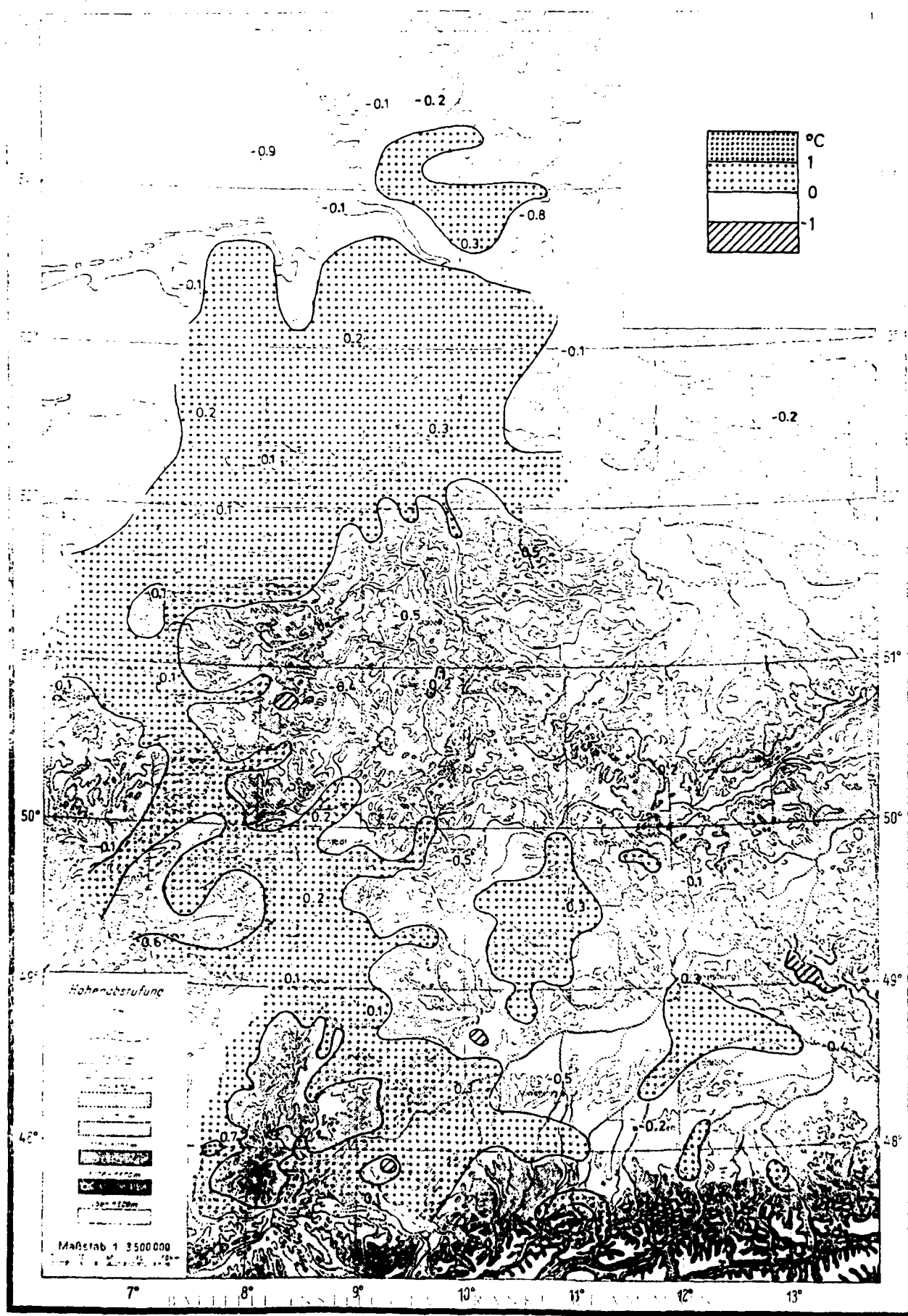


Table 6 Meteorological/Climatological Data for the Areas of Investigation (May 1985)

Mai 1985

Monatswerte

Station	Höhe über NN in m	Lufttemperatur in °C					Luftfeuchtigkeit in %					Zahl der Tage										Sonnen schein- dauer in %												
		Mittel	Abweichung 1	höchste	Datum	tiefe	Datum	tiefe am Erde boden	Datum	Luftdruck in hPa	Bewölkung 0-8	Niederschlag		Frostschlag		Schnee		Nebel		Gewitter		Heitere		Trübe		Sonnige Tage		Frosttage		Eintage		in Std	in %	
												in mm	in %	in mm	in %	in mm	in %	in mm	in %	in mm	in %	in mm	in %	in mm	in %	in mm	in %	in mm	in %	in mm	in %			in mm
Schleswig-Holstein																																		
Leck auf Sylt (Wst)	26	12.0	1.2	26.2 27.		2.0	3.	0.1	3.	73.4	4.6	26	65	6	3	1		3	1	2	5	9										257	102	
Leck (BW)	7	11.9	1.1	28.1 27.		-0.5	3.	-1.9	3.	74.4	4.4	20	77	12	8			3	1	6	9											253		
Flemling (Schäferhaus)	41	11.7	0.7	27.0 27.		0.2	1.	-1.5	1.	74.4	4.3	37	77	11	8			1	1	6	8											212	83	
Wyl/Fohl	1	12.1	0.5	26.5 27.		0.8	1.	-1.8	3.	76.4	4.9	16	40	8	6			1	1	5	13											235		
Stoltehl 1)	26	10.9	0.5	22.5 27.		0.1	1.	0.2	1.	80.4	4.2	44	94	11	8			1	1	2	10											212		
Schleswig (WA)	43	11.8	0.8	27.5 27.		0.5	1.	-0.2	1.	75.4	4.7	26	46	9	8			1	5	4	9											235	95	
Westmarkdorf (Fehmarn I)	1	10.1	-0.7	25.5 27.		2.6	3.	1.9	3.	83.4	4.5	52	24	13	9			6	4	6	11											231		
Schwesung (BW)	28	11.8	0.8	28.6 27.		0.4	3.	-1.2	1.	76.4	4.6	12	25	9	4			2	4	6	8											214		
Kiel-Kronshagen (Wst)	17	12.1	0.7	28.2 27.		0.4	1.	-1.3	1.	75.4	4.4	34	71	10	7			2	1	5	8											202	81	
Hohwacht	10	10.7	-0.3	26.5 27.		1.7	4.	0.7	4.	80.4	4.3	44	92	10	6			1	1	3	10											233		
Erdle 1)	18	12.1	1.0	28.8 27.		1.2	1.	0.4	1.	75.4	4.8	21	35	10	6			3	4	5	7											219		
Holn (BW)	10	11.8		29.1 27.		0.3	1.	-1.6	1.	67.4	5.5	22	33	6	3			3	4	5	7											238		
Sankt Peter-Ording	4	12.2	1.0	29.0 27.		0.5	1.	-2.2	1.	76.4	4.7	16	33	6	3			1	1	3	9												132	95
Rendsburg	8	12.2	0.9	30.0 27.		1.7	1.	-0.8	1.	74.5	4.1	24	43	10	5			1	1	5	13											202		
Heide/Holstein	14	11.0	-0.4	27.8 27.		1.5	3.	-0.5	3.	81.5	5.0	56	117	9	7			1	1	3	13													
Heide/Holstein	12	12.4	0.7	29.8 27.		-0.1	1.	-1.5	1.	71.4	4.7	31	55	9	6			7	1	3	7													
Heide/Holstein	4	10.6	0.3	20.2 26.		2.7	2.	-2.6	1.	83.4	4.7	7	16	8	2			2	1	4	9													
Plön (See I)	24	12.2	0.7	29.2 27.		1.8	1.	0.0	1.	75.4	4.7	31	55	11	6			2	1	4	9													
Holtenstedt	50	11.9	0.3	28.9 27.		1.4	1.	-0.5	4.	78.4	4.5	32	57	10	6			1	1	8	9													
Neumünster	80	12.0	0.7	29.0 27.		1.2	1.	0.0	1.	78.4	4.0	23	40	9	6			1	1	10	7													
Heide, Kr. Dithmarschen I)	2	12.9	0.8	29.5 27.		0.6	1.	-1.1	1.	71.4	4.1	21	40	10	4			1	1	5	6												225	
Wahlstedt	2	12.5	0.9	28.4 27.		0.9	1.	-1.4	1.	74.4	4.2	10	20	8	3			1	1	5	6												238	
Travemünde I)	9	11.0	-0.5	29.2 27.		1.7	1.	1.0	1.	77.4	4.2	28	58	7	6			3	2	9	9													
Wahlstedt	45	12.5	1.0	28.9 27.		1.7	3.	-0.3	1.	71.4	4.5	18	58	8	6			2	3	4	12												215	86
Lubeck (Wst)	14	12.1	-0.1	30.4 27.		0.6	4.	-1.9	4.	74.4	4.7	32	57	9	5			2	3	4	7												206	
Brand-Hornetküchen I)	9	12.6	1.3	30.0 27.		0.3	1.	-2.1	1.	80.4	4.8	23	56	10	7			3	1	4	7												208	
Glückstadt 1)	2	12.6	0.6	30.3 27.		2.3	1.	0.4	1.	76.4	4.7	30	56	10	7			3	1	4	7												200	
Quickhorn (Femmeldehnbogruppe)	13	12.9	1.3	29.2 27.		1.2	4.	-0.9	4.	74.4	4.6	20	53	10	3			4	1	5	9												208	
Ahrenshoop-Wulsdorf (AMBF)	46	12.3	0.7	29.0 27.		0.8	4.	-2.5	4.	74.4	4.6	47	78	6	4			1	1	5	9												208	
Grambek	27	13.4	1.3	29.4 27.		-0.4	4.	-2.1	4.	73.4	4.4	31	63	10	6			1	1	4	7													
Niedersachsen																																		
Hamburg-Fuhlsbüttel (Flugh.)	13	13.2	1.2	29.2 27.		0.9	1.	-1.4	4.	72.4	4.5	33	60	7	2			3	1	2	6												234	102
Bremerhaven (Wewa)	7	13.3	1.3	29.7 27.		3.2	1.	1.7	1.	75.4	4.8	12	21	10	5			2	1	3	8												224	67
Bremen (Flugh.)	4	13.9	1.8	29.4 27.		0.1	1.	-2.4	1.	74.5	5.3	32	57	11	7			3	3	1	13												213	62
Niedersachsen																																		
Cuxhaven (Wst)	5	12.5	0.6	29.9 27.		3.0	1.	-2.0	1.	81.4	4.7	10	19	8	2			1	1	4	9												235	92
Wangerooge	3	11.4	0.5	29.7 27.		2.8	1.	2.2	1.	83.7	5.0	18	38	11	6			5	1	3	8													
Langeoog	5	11.7	0.8	30.0 27.		3.1	1.	1.4	1.	83.5	5.0	16	36	9	5			5	1	4	9													
Norderney (Wst)	11	11.7	0.7	30.3 27.		3.1	2.	3.0	2.	81.4	4.8	13	30	11	4			5	1	4	9												220	94
Bederkesa	27	13.4	1.5	31.0 27.		0.1	1.	-0.3	1.	74.4	4.6	14	24	8	4			2	1	5	11													
Wilhelmshaven	1	12.9	1.1	28.6 27.		1.2	1.	-1.3	1.	78.4	4.3	22	42	11	7			5	1	5	6												218	
Jever (BW)	7	12.9	1.3	30.5 27.		0.7	1.	-1.8	1.	72.4	4.8	19	38	11	8			5	1	4	10												235	
Jork	1	13.6	1.2	31.0 27.		0.0	1.	-1.7	1.	70.4	5.0	66	81	7	3			1	1	2	10													
Bremerwerde	5	13.2	1.1	31.5 27.		-1.4	1.	-3.6	1.	72.4	4.8	13	22	9	5			1	1	1	8												214	91
Aurich	4	12.7	1.2	29.8 27.		-0.2	1.	-2.0	1.	72.5	4.8	16	29	8	4			1	1	1	14													
Emden-Neserland (Wst)	5	13.2	1.4	29.9 27.		3.0	3.	1.0	3.	74.5	5.5	19	35	8	3			3	1	2	14													

1) Sonnenscheindauer nicht direkt am Standort der Station registriert *) vom Mittel 1931-1960 **) vom Mittel 1951-1960
Abkürzungen: WA = Wetteramt, Wewa = Wetterwarte, Wst = Wetterstation, AMBF = Agrarmeteorologische Beratungs- und
Forschungsstelle, BW = Bundeswehr, Kht = Klimahauptstation, Nst = Niederschlagsstation

Table 6 ctd.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
Brake (Unterweser)		5	13.1	1.1	29.5	27.	0.4	1.	-1.5	1.	76	5.2	15	29	10	6					4	1	1	12		3			217	
Buchholz i. d. Nordheide		77	13.0		28.8	27.	-1.6	4.	-3.0	4.	75	5.8	46	37	7	4	2				3	1	1	13		3	1		226	
Teichmoor		6	13.8	1.6	30.3	27.	-0.2	1.	-1.2	1.	78	4.8	20	37	9	6					3	1	2	6		3	1		226	
Lüneburg		11	14.1	1.3	30.0	27.	0.1	4.	-1.5	4.	73	4.9	29	54	9	5	1				1	2	5	10		1	3		220	
Okenburg (J.)		5	13.6	1.0	31.0	27.	1.5	1.	-1.6	1.	73	5.4	29	57	10	8	1				3	1	2	3		1	3		190	
Rotenburg (Wunne)		24	14.2	1.5	30.0	27.	1.0	1.	-1.6	1.	70	4.8	36	61	10	9	1				3	1	4	10		1	3		190	
Friesoythe-Eilwechertdamm		8	13.8	1.8	30.8	27.	2.6	3.	-0.7	1.	71	5.1	22	42	11	7	2				3	3	1	1		1	3		221	
Sollau (Wst)		77	14.1	1.7	30.8	27.	0.2	1.	-2.4	1.	72	5.5	42	71	11	9	2				3	3	1	1		1	3		221	
Dorpen		6	13.4	1.3	30.9	27.	1.5	3.	-2.0	3.	75	5.4	26	75	11	7	5	1			4	1	1	12		1	2		213	
Uelsen		45	14.1	1.6	29.8	27.	-0.6	4.	-2.0	4.	74	4.3	39	76	10	5	1				3	2	1	9		1	3		213	
Lachow (Wst)		17	14.1	1.2	30.1	27.	0.6	3.	-1.0	4.	72	5.2	38	76	10	5	1				3	2	1	9		1	3		217	
Ahlhorn (BW)		48	13.6		30.3	27.	3.2	2.	1.9	3.	71	5.4	24	76	13	8					5	4	1	1		3	2		210	
Bassum (Luftsch.-Warnant)		53	13.7		29.0	27.	2.7	1.	-1.0	1.	72	5.1	20		11	7					5	3	2	10		1	3		192	
Unterlab		98	13.8	1.5	30.8	27.	-1.4	4.	-2.9	1.	68	4.9	45	83	12	7	1				1	3	2	10		1	3		192	
Lönneen		36	14.1	1.6	31.0	27.	3.0	3.	-1.5	3.	71	6.3	33	59	9	6	1				1	3	2	15		1	2		201	
Hankensbüttel		84	13.8	1.3	31.0	27.	0.0	1.	-1.6	1.	73	5.1	51	96	10	7	2				1	5	2	12		2	3		201	
Nienburg		26	14.7	1.7	30.5	27.	3.5	2.	2.5	2.	69	5.2	17	33	12	6	1				1	2	4	12		1	5		191	
Lingen (Wst)		21	14.5	1.5	30.7	27.	3.0	2.	1.6	3.	69	5.1	42	78	13	6	1				1	4	1	9		1	2		191	
Ahlhansen		48	14.0	1.8	29.2	27.	4.0	2.	2.5	4.	74	4.1	28	56	5	4	1				1	2	5	9		1	2		194	
Hannover-Langenhagen (Hugl)		53	14.3	1.7	30.5	27.	2.7	1.	0.2	4.	71	5.2	37	71	12	7	1				5	5	1	10		1	3		186	
Nordhorn		24	13.4	0.6	30.2	27.	2.8	2.	1.6	2.	67	4.5	48	92	12	6	1				2	5	2	7		1	3		231	
Wollburg-Fallersleben		74	14.9	1.9	29.8	27.	1.3	1.	-0.1	1.	68	4.0	34	67	13	8	2					6	4	6		1	3		231	
Braunschweig-Völkenrode (Wst)		81	14.2	1.3	29.1	27.	1.4	4.	-1.6	4.	72	4.6	52	96	13	8	2					6	4	6		1	3		104	
Osabrück (Wst)		95	14.2	1.5	30.0	27.	3.2	2.	2.2	2.	70	5.6	34	68	11	7	1				2	3	2	14		1	3		199	
Annaberg		395	12.4		28.8	27.	0.6	2.	0.2	4.	77	5.1	43	62	14	9					15	3	1	1		1	3		90	
Helmsdorf		140	14.7	1.9	27.1	14.	0.4	4.	-1.6	4.	65	5.3	30	57	14	7	1					5	1	12		1	3			
Hildesheim		100	14.3	1.5	29.8	27.	1.0	4.	-1.2	4.	73	4.9	73	124	12	7	2					4	4	12		1	3			
Hann.		64	15.0		29.9	27.	3.0	4.	-1.1	4.	75	4.6	54	100	12	6	1					4	4	12		1	3			
Salzgitter-Rungenheim		130	14.3		29.7	27.	0.4	4.	-0.4	4.	71	4.6	73	135	12	11	3				2	7	6	10		1	3		197	
Bad Harzburg		260	13.7	1.4	30.1	27.	0.6	3.	-0.7	4.	72	4.9	108	157	16	11	3				6	5	6	4		1	3		223	
Hahnenke		553	11.7	1.4	26.6	27.	-0.5	4.	-4.1	4.	80	4.7	89	101	12	12	1				1	5	3	12		1	3		221	
Schlenkerberg		504	11.8	1.4	26.2	27.	0.0	2.	-3.7	4.	79	3.5	112	13	10	5	2				1	5	3	12		1	3		186	
Holzmünden		128	14.2	1.3	29.4	27.	2.2	4.	-0.4	4.	65	4.8	54	95	13	5	2				2	7	9	6		1	3		181	
Embeck		105	14.8	2.1	30.4	27.	0.5	4.	-1.0	4.	69	5.5	45	82	12	10					2	4	8	9		1	3		209	
Bad Grund		300	13.2		28.8	27.	-0.6	4.	-0.6	4.	73	4.0	43	54	12	9					1	4	8	9		1	3		210	
Lausdahl		563	11.6	1.4	26.4	27.	-2.2	4.	-2.2	4.	76	4.4	96	116	12	11	4				3	6	2	5		1	3		216	
Altenu		495	11.4		27.0	27.	-3.0	4.	-3.0	4.	84	4.0	98	123	12	10	4				2	5	4	8		1	3		197	
Holzmünden-Silberborn		440	12.0		26.4	27.	0.0	3.	-5.3	4.	75	5.3	61	76	11	7	3				4	6	1	4		1	3		93	
Braunlage (Wst)		407	11.4	1.5	25.3	27.	-1.0	4.	-1.0	4.	75	5.3	61	76	11	7	3				4	6	1	4		1	3		206	
Bad Landerberg		317	13.4		28.7	27.	-1.5	4.	-1.9	4.	71	4.6	49	68	10	9	1				1	4	3	9		1	3		188	
Göttingen (Wst)		175	14.2	1.3	30.2	27.	0.6	4.	-1.3	4.	70	5.3	52	93	11	8	1				2	4	3	11		1	3		237	
Berlin-Dahlem (Meteorol.-Inst.)		51	15.4	1.6	30.5	14.	0.0	4.	-1.3	4.	65	4.4	32	70	9	8	1				1	6	3	7		1	5		237	
Nordrhein-Westfalen																														
Rahden-Vari		42	14.1	1.4	30.2	27.	3.6	3.	2.8	2.	73	5.0	14	31	11	3					4	5	2	8		1	3		203	
Bad Salzuflen (Wst)		98	14.5	1.6	29.6	27.	3.1	2.	2.4	2.	70	5.2	31	55	10	8					3	5	3	11		3			208	
Münster (Wst)		62	14.4	1.6	28.8	27.	3.6	2.	2.6	2.	73	5.0	45	88	12	7	2				3	5	3	11		3			202	
Gütersloh		72	14.7		30.4	27.	3.4	2.	3.2	2.	73	4.7	42	84	13	7	1					4	4	10		1	4			202
Buchholt-Liedern (Wst)		21	13.8	1.0	29.4	27.	3.6	2.	3.5	2.	75	5.5	53	96	14	10	1				6	7	2	11		2			202	
Bad Lippespringe (Wst)		157	13.8	1.2	28.6	27.	2.6	2.	0.7	4.	73	5.0	50	75	13	7	1				2	5	5	12		2			201	
Kleve		45	13.8	0.6	29.0	27.	3.4	2.	3.4	3.	75	6.3	66	114	13	10	3				4	5	18		2				193	
Lippstadt-Bokenhorde		92	13.9		28.6	27.	3.0	2.	3.0	2.	73	5.0	73	113	11	9	2				2	4	3	12		2				171
Dortmund		240	13.7	1.4	28.8	27.	2.0	2.	0.9	2.	73	4.0	42	70	14	9	1					6	15		2					171
Borgentreich-Bühne		120	14.1	1.0	29.9	27.	3.3	3.	2.4	3.	77	4.7	74	125	10	8</														

Table 6 ctd.

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Station	Höhe über NN m	Lufttemperatur in °C					Luftfeuchtigkeit in %					Windrichtung in °	Windgeschw. in m/s	Niederschlag					Zahl der Tage					Sonnen- scheindauer in h																																																																																																																																																																																																																																																																																																																																																																																																			
		Mittel	höchste	Datum	tiefste	Datum		tiefste am Erdboden	Datum	Bewölkung in %	Höhe in mm			Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in mm	Höhe in

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29		
Rheinland-Pfalz																															
Thiesendorf		290	13.6	1.4	28.4	26.	1.8	2.3	0.4	3.	75	5.3	92	137	11	11	6	1	1	4	3	3	12	1	3				175	81	
Bad Marienberg (Wst)		547	11.6	1.2	35.4	27.	-0.3	3.	-0.3	3.	78	5.4	99	138	14	12	5	2	1	10	5	3	14	1	3				142		
Bad Neuenahr-Ahrweiler		111	14.4	1.5	20.0	27.	3.0	3.	2.8	3.	78	5.4	61	103	11	11	2			3	1	3	12	1	5						
Neuwied Wollmuth		121	14.7		29.6	26.	3.5	4.	2.8	3.	58	8.3	55	83	12	9	2			1	3	4	14	1	5						
Niedertiefen		250	13.6		29.2	26.	2.3	4.	0.0	6.	73	5.2	55	75	15	11	1			1	6	4	14	1	5						
Kohlentz (Wst)		72	15.1	0.9	29.1	27.	-0.2	3.	3.1	3.	73	6.1	71	134	14	11	1			1	15	9	14	1	4				145		
Sulzbürg (Wst)		627	11.1	0.6	24.9	26.	2.9	3.	-0.2	3.	77	5.9	50	70	19	12	1			3	1	15	9	14	1	5					
Mayen		270	15.0	2.0	30.7	26.	4.8	4.	2.0	3.	73	5.7	77	151	19	14	1			3	2	4	14	1	8						
Bad Ems		77	15.4	1.8	30.9	27.	-0.1	2.	-0.9	4.	73	5.3	64	110	11	11	4			1	17	1	14	1	1				139		
Schneidhofsheim		657	10.3	0.4	25.2	26.	0.6	2.	0.0	3.	81	5.5	69	92	19	11	1			1	6	7	14	1	1				154		
Wettstein		530	11.5	0.7	25.7	26.	1.3	3.	0.4	5.	80	5.6	34	47	17	10	1			1	2	4	12	1	2						
Manderscheid Untel		403	12.1	0.7	27.2	26.	1.3	3.	0.4	3.	80	5.6	32	51	17	11	1			1	4	1	2	15	1	2					
Bunkersgrath		400	12.9	1.1	27.4	26.	1.1	3.	0.0	3.	76	5.5	50	79	10	8	1			1	1	3	2	15	1	3					
Simmerath Wallbach		440	12.0	0.2	25.3	27.	0.5	3.	0.0	3.	76	5.6	60	94	14	11	1			1	1	3	2	15	1	3					
Manz		125	15.2	0.6	29.6	27.	3.5	4.	0.2	4.	59	5.1	64	133	16	10	4			1	5	1	15	1	3				121	63	
Bernkastel		120	14.7	0.7	29.7	26.	4.7	3.	3.0	4.	70	5.8	22	38	15	9	4			1	1	1	1	1	3				153	66	
Bad Kreuznach		159	14.7	0.7	28.5	27.	3.9	4.	1.9	4.	70	5.4	65	130	16	8	3			1	2	2	1	1	3						
Herrstein		345	12.1	0.3	27.2	26.	2.3	6.	-0.3	3.	77	5.3	51	94	16	10	2			1	2	4	1	13	1	3			146	62	
Deuschbach (Wst)		480	12.3	0.7	25.5	26.	1.4	3.	-0.4	3.	74	5.8	35	51	19	12	1			1	2	3	4	10	1	3			138	75	
Trier (Stadt)		144	14.3	0.5	26.7	26.	4.6	3.	2.4	3.	74	5.1	46	75	18	10	1			1	7	9	1	16	1	3			163	75	
Trier-Petersberg (WA)		265	13.4	0.3	29.3	26.	3.1	3.	1.8	3.	75	6.0	55	89	19	10	1			1	5	3	10	1	3				180	75	
Alzey		166	14.6	1.0	29.3	27.	0.2	4.	-1.0	4.	75	5.2	63	140	14	10	1			1	5	3	13	1	3						
Birkenfeld-Feckweiler		395	12.3	0.7	27.6	26.	1.0	2.	-0.8	4.	74	5.3	61	105	13	10	1			1	1	7	18	1	3				141		
Ruppertsbecken		482	12.8	0.8	25.3	26.	1.0	3.	0.5	4.	65	4.3	82	137	11	9	3			1	1	1	1	18	1	3			174	80	
Kaiserslautern		248	13.9	0.7	28.5	26.	0.4	4.	-0.2	4.	72	6.4	74	128	12	9	3			1	9	2	1	1	3				181		
Wambol (Wst)		553	12.5	0.7	27.3	26.	0.4	3.	-1.9	4.	72	5.2	65	106	14	9	3			1	7	2	1	1	3						
Neustadt/Wstr. (Hendebach)		125	15.1	1.0	28.8	27.	0.4	4.	-3.2	4.	70	5.5	52	186	15	10	1			1	4	5	1	13	1	3					
Prüm		280	12.3	0.3	28.5	26.	-2.4	4.	-4.5	4.	79	5.5	87	140	17	9	1			1	4	5	1	13	1	3					
Bad Bergzabern 1)		180	14.7	0.5	28.5	27.	3.5	2.	1.2	4.	73	5.5	60	91	12	10	1			1	3	3	8	1	3				169		
Baden-Württemberg																															
Werrheim-Talhof		140	14.9	1.6	30.2	26, 27.	0.8	4.	-0.5	4.	70	4.3	120	214	14	13	3			3	4	5	3	1	7	1	1				
Lauda-Königsbach-Gertelsheim		199	14.5		29.6	26.	-1.1	4.	-2.7	4.	70	5.0	94	159	15	13	3			3	2	5	3	1	5	1	1				
Mannheim (Wewar)		96	15.3	0.7	29.9	27.	1.2	4.	-2.1	4.	72	5.4	107	195	15	12	3			2	6	3	2	16	1	3			185	74	
Büchen, Kr. Neckar-Odenw.		200	13.3	0.8	28.8	27.	-1.3	4.	-2.1	4.	74	5.3	95	164	17	12	4			2	6	3	2	16	1	3			175	74	
Bad Mergentheim Neunkirchen		176	13.8	0.7	28.3	26.	0.0	4.	-3.1	4.	74	5.3	71	115	15	11	2			2	2	3	3	13	1	3					
Eberbach/Neckar		111	15.8	0.8	29.5	26.	3.1	3.	-2.6	4.	71	5.7	132	200	16	11	3			1	3	2	3	16	1	3					
Hendebach 1)		210	14.7	1.1	30.3	27.	0.5	4.	-2.0	4.	66	5.2	101	138	19	11	3			1	3	4	14	1	4				160	68	
Nudenau		209	14.3	1.4	30.0	27.	-0.6	4.	-2.0	4.	71	5.0	177	260	15	13	6			3	5	2	7	1	4						
Ingelfingen		100	15.2	0.8	29.0	26.	-0.1	4.	-0.1	3.	72	5.1	78	113	12	9	3			1	5	2	7	1	3				184	77	
Philippshagen (Kernkraftwerk)		276	14.0	0.6	28.4	26, 27.	-0.7	4.	-3.5	4.	75	5.2	171	248	19	13	7			1	5	3	10	1	3						
Öhringen (Wst)		167	15.0	0.4	29.1	27.	0.2	4.	-1.0	4.	71	4.8	125	176	18	12	4			1	7	4	10	1	6						
Heilbronn		210	14.0	0.9	29.7	26.	-0.2	4.	-2.8	4.	74	4.8	180	250	19	12	6			1	4	4	10	1	6						
Eppingen		418	13.2	0.8	29.2	27.	-3.1	4.	-3.4	4.	71	5.6	156	236	16	15	6			1	1	5	1	13	1	3					
Crailsheim		379	13.3		28.0	27.	-1.8	4.	-3.1	4.	79	5.8	176		19	14	8			2	5	1	14	1	3				168	78	
Schwäbisch-Hall Leinertshof		112	15.0	0.2	29.2	26.	-0.3	4.	-2.4	4.	74	6.2	115	169	16	13	4			1	8	3	13	1	5	1	1		173	73	
Karlsruhe (Wst)		116	15.0	0.4	31.1	26.	-1.8	4.	-3.5	4.	75	5.1	279	340	13	17	8			3	3	1	13	1	5	1	1		156	71	
Rheinstetten Forchheim		344	12.7	0.8	28.2	27.	-1.8	4.	-2.5	4.	78	5.4	112	149	15	15	5			1	5	4	13	1	4	1	1				
Murrhardt		443	12.7	0.8	28.6	27.	-2.6	4.	-2.8	4.	78	5.7	176	220	15	16	8			1	3	6	13	1	4	1	1				
Ellwangen/Jagst		492	12.3	0.3	28.0	27.	-3.0	4.	-4.6	4.	77	5.4	135	185	17	15	5			1	3	6	15	1	3	1	1			179	
Oschwend, Kr. Ostalb		245	13.1	0.3	27.5	26.	-0.8	4.	-2.6	4.	77	5.4																			
Pforzheim																															

Table 6 ctd.

Station	Höhe über NN m	Lufttemperatur in °C					Luftfeuchtigkeit					Windrichtung					Zahl der Tage										Sonnen- stunden in %	
		Abweichung		hochste	Datum	tieftste	Datum	tieftste am End boden	Datum	Bewölkung	Tagesrichtung		Niederschlag		Schnee		Regen- Tage	Sommer- Tage	Frost- Tage	Eis- Tage	in Std	in %						
		Mittel	3								4	5	6	7	8	9							10	11	12	Höhe in m	Höhe in %	0-10 mm
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Stuttgart (Schnarnberg, WA)	314	14.2	0.6	27.9	26.	0.4	4.	-1.8	4.	71.5	6	140	194	18	14	7	.	.	1	10	13	.	3	.	.	182		
Bad Herrenalb	351	12.4	0.7	27.0	26.	-1.1	4.	-3.7	4.	78.5	9	203	183	18	14	8	3	2	9	5	2	13	3	1	1	119		
Donau	717	11.1	0.3	24.6	26.	-0.3	3.	-2.1	4.	77.5	7	218	154	18	17	6	3	2	6	3	3	12	1	1	1	150		
Schönbach, Kr. Calw	633	11.1	0.1	25.5	26.	-1.2	4.	-2.5	4.	74.5	8	143	157	18	16	5	2	.	6	3	3	15	1	1	1	156	67	
Schwäbisch Gmünd-Sträßdorf	415	13.2	0.4	28.2	27.	-1.4	4.	-2.7	4.	74.5	5	164	198	15	15	6	.	.	8	2	3	13	3	1	1	.		
Baden-Baden	218	13.7	0.2	28.0	26.	-0.6	4.	-1.2	4.	74.5	1	158	178	14	14	6	1	.	1	2	4	9	3	1	1	.		
Wildbad (Stadt)	417	11.9	0.0	27.9	26.	-2.4	4.	-3.9	4.	76.5	2	155	161	19	17	6	1	.	5	3	9	3	1	1	1	167		
Wildbad Sommerberg	740	10.9	-0.1	25.6	26.	-0.2	3.	-1.4	4.	77.5	7	175	177	19	17	6	3	2	7	3	2	12	1	1	1	167		
Bühlertal	190	14.5	0.0	29.8	26.	1.8	4.	-1.4	4.	70.5	0	158	158	14	14	6	.	.	1	5	3	8	3	1	1	163		
Rheinau-Frieselt	131	14.2	0.5	29.1	26.	-0.7	4.	-3.9	4.	81.5	7	153	123	13	12	5	.	.	2	9	2	13	3	1	1	123		
Enzklosterle 1)	606	10.2	0.6	25.1	26.	-2.3	4.	-2.3	4.	80.5	6	128	123	19	18	4	3	2	5	3	2	13	1	1	1	191	91	
Stetten (Wst)	734	11.3	0.6	25.1	27.	-0.6	3.	-4.6	4.	79.5	5	154	160	18	16	6	3	2	14	10	2	14	1	3	1	151		
Heidenheim/Brenz	500	12.2	0.0	27.2	27.	-4.2	4.	-5.4	4.	80.5	5	139	196	16	15	6	3	.	2	6	4	14	2	1	1	151		
Nürtingen-Oberrönsingen	280	13.7	0.6	30.0	26.	-2.0	4.	-5.2	4.	75.5	4	141	22	16	5	.	.	2	10	3	13	1	3	1	1	154		
Hornsgünde	1122	8.0	0.0	20.1	26.	-2.5	3.	-2.5	4.	87.6	2	183	115	18	15	9	3	7	16	7	1	17	1	3	1	.		
Heidenberg	392	12.2	-0.1	28.5	26.	-2.3	4.	-4.0	4.	81.6	9	94	134	18	15	3	1	.	4	4	10	.	3	1	1	.		
Napfeld	758	11.5	0.7	24.1	26.	-1.0	3.	-2.0	4.	74.5	7	146	147	16	16	6	3	1	7	5	2	14	.	2	1	181		
Lenningen-Schopfloch	747	11.4	0.7	24.0	27.	-1.0	4.	-3.0	4.	74.5	3	131	160	19	16	4	3	2	2	6	4	12	.	2	1	176		
Laichingen	342	12.7	0.7	26.8	26.	-2.8	4.	-5.1	4.	79.5	9	121	160	19	16	3	.	2	6	4	12	.	2	1	1	170		
Offenburg	155	16.2	0.0	27.5	26.	1.0	4.	-1.9	4.	75.5	9	118	155	16	14	5	3	.	1	6	3	18	3	2	1	170	78	
Freudenstadt (Wst)	797	10.2	0.1	23.9	26.	-2.0	4.	-5.0	4.	79.5	7	151	151	18	14	5	3	3	1	6	3	13	4	2	1	195	88	
Gengenbach	185	13.5	-0.5	28.0	26.	0.4	4.	-2.6	4.	78.5	7	159	187	19	16	5	3	.	1	8	1	10	.	2	1	135		
Nünningen	721	11.7	1.1	26.1	27.	-2.8	4.	-5.1	4.	75.5	7	126	142	17	14	7	3	.	2	10	2	11	.	2	1	164		
Hechingen	520	12.0	-0.2	25.5	26.	-3.1	4.	-4.3	4.	74.5	5	124	161	18	16	5	4	2	3	10	2	12	.	3	1	195	88	
Ulm (Wst)	522	13.2	1.1	28.0	27.	-1.4	4.	-4.1	4.	75.5	0	112	156	17	15	4	.	.	2	8	2	17	.	3	1	164		
Laß/Schw.	158	14.6	0.4	27.6	26.	0.9	4.	-2.2	4.	75.5	6	124	161	18	16	8	.	.	3	10	2	17	1	4	1	135		
Willbach	265	13.3	0.0	30.1	26.	1.7	4.	-0.2	4.	78.6	0	151	180	17	16	8	.	.	8	5	1	17	1	4	1	159		
Albstadt-Ehingen	742	10.8	0.0	24.0	26.	-3.0	4.	-6.1	4.	71.5	6	177	206	21	15	8	3	.	2	6	1	13	.	1	1	161		
Freimut-Ottoschwanden	442	12.8	0.0	25.9	26.	1.5	4.	-1.2	4.	77.5	5	128	152	21	16	6	3	.	6	10	3	14	.	1	1	131		
Rotweil	585	11.4	-0.3	25.7	26.	-3.8	4.	-5.0	4.	80.5	9	155	218	19	17	5	2	.	12	4	2	17	.	1	1	159		
Emmendingen-Mundingen	201	13.5	0.0	27.0	26.	-1.3	4.	-3.3	4.	80.5	9	151	210	20	15	6	3	.	1	7	3	13	3	1	1	131		
Schnösch	904	9.6	0.0	21.5	26.27.	-1.2	3.	-3.3	4.	83.6	0	110	170	17	15	4	3	5	2	5	2	14	.	3	1	131		
Tübingen	683	10.9	-0.1	24.7	26.	-1.6	4.	-6.0	4.	78.5	5	138	135	16	16	4	3	1	.	6	2	11	.	1	1	136	67	
Königsfeld/Schw.	767	10.6	0.1	25.8	26.	-3.4	4.	-3.2	4.	83.5	4	107	126	19	16	4	3	1	.	4	3	12	.	2	1	125	73	
Biberach/Riß	534	13.1	1.2	28.0	27.	-1.2	4.	-3.2	4.	73.5	8	130	146	16	12	7	2	4	2	2	2	13	.	3	1	156		
Schönwäld/Schw. 1)	1031	9.1	0.0	22.5	26.	-2.0	4.	-2.7	4.	84.5	9	170	170	16	15	8	2	4	2	2	2	13	.	3	1	135		
Klappenack (Wst)	973	9.8	0.0	23.2	26.	-1.6	3.	-2.7	4.	80.5	7	142	173	20	17	5	3	2	16	10	2	12	.	3	1	135		
Oberrotweil 1)	223	14.3	0.2	28.5	26.	-0.3	4.	-2.6	4.	77.5	6	132	203	18	13	5	3	.	3	6	3	14	.	3	1	135		
Sigmaringen	650	12.2	0.4	26.0	27.	-2.5	4.	-5.9	4.	74.5	7	103	134	19	13	4	3	.	3	6	3	14	.	3	1	135		
Lienetal bei Iffingen	284	12.8	-0.3	27.5	26.	-0.9	4.	-2.1	4.	79.5	6	147	193	18	17	6	3	.	2	5	2	15	.	3	1	135		
Villingen	698	10.8	0.1	25.6	26.	-4.2	4.	-7.5	4.	80.5	9	105	135	18	12	6	3	.	5	2	3	18	.	3	1	135		
Freiburg i. Br.-Herdern	255	13.9	-0.6	27.7	26.	0.1	4.	-4.9	4.	78.6	0	146	172	19	17	5	3	3	5	6	3	17	.	3	1	135		
Sankt Mergen	900	10.0	-0.2	22.4	26.	-1.0	4.	-4.9	4.	81.5	8	168	168	17	17	5	3	3	13	10	2	15	.	3	1	135		
Bad Durheim	718	10.8	0.5	24.4	26.	-3.2	4.	-1.3	4.	78.5	8	110	147	17	12	4	2	.	1	5	2	16	.	3	1	135		
Freiburg i. Br. (WA)	269	14.4	-0.2	28.5	26.	1.8	4.	-0.8	4.	70.6	1	147	193	19	17	5	3	.	2	10	3	18	.	3	1	135		
Mengen i. Br.	215	14.3	0.5	29.5	26.	0.3	4.	-0.8	4.	77.6	3	152	238	18	15	5	.	.	1	8	1	18	.	3	1	135	59	
Aulendorf	521	12.6	1.0	27.0	27.	-1.8	4.	-4.0	4.	75.6	0	138	160	16	15	5	2	.	3	8	1	15	.	3	1	135		
Donauwörth 1)	677	11.3	0.5	25.4	26.	-3.8	4.	-4.0	4.	80.5	9	135	193	16	11	5	2	.	3	5	3	15	.	3	1	135		
Tübingen-Neustadt 1)	835	9.7	-0.1	23.5	27.	-4.3	4.	-4.0	4.	81.6	0	126	129	17	13	4	3	.	7	1	13	.	3	1	1	135		

Table 6 ctd.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Friedenweiler	924	9.8			24.0	27.	-3.0	4.	-6.5	4.	78	5.2	89	16	13	2	3	1	1	4	2	8							124
Prüllendorf Bunnhansen	638	10.7	-0.5		24.9	26.	-5.9	4.	-6.5	4.	77	6.3	106	122	18	13	4			2	4	2	20						143
Bremgarten (BW)	212	13.8			29.0	26.27.	-0.4	4.	-2.1	4.	74	5.7	109	168	17	14	2			4	9	1	11						135
Hinterzarten	883	9.1	-0.3		23.1	26.	-6.0	4.			87	5.6	153	163	20	17	6	3	2	3	6	2	11						100
Ochtersbach	545	11.6			25.9	27.	-0.9	4.			80	6.3	218	214	24	15	9			5	8	1	19						123
Feldberg Schw (Wst)	1486	5.9	0.1		16.8	26.27.	-4.6	3.	-12.2	4.	87	6.4	207	163	22	19	10	5	11	24	7	1	19						143
Leinbach	818	10.1	0.3		24.1	26.	-4.3	4.			80	5.6	99	100	16	16	4	3		4	7	2	13						74
Aach. Kr Konstanz	478	13.2	0.5		28.0	27.	-2.2	4.	-5.0	4.	76	5.6	85	109	16	13	3			4	3	2	12						
Stöckach	475	12.8			27.1	27.	-1.3	4.	-2.7	4.	76	5.5	105	130	15	11	4			4	3	3	11						
Menzenbergwand																													
Schloßwe	963	9.3	0.3		23.7	26.	-3.6	4.			86	5.7	132	133	18	16	5	3	1	8	2	15							142
Badenweiler	412	13.0	-0.3		26.2	26.	-0.2	4.	-1.2	4.	77	5.9	115	131	18	16	3			7	5	15							137
Ravensburg (I)	435	13.6	0.8		28.3	27.	-1.9	4.	-3.7	4.	80	5.7	160	158	15	15	5	1		7	6	3	14						90
Friedrichshausen	852	9.7	-0.6		22.5	26.	-1.8	4.	-2.4	4.	82	5.5	222	179	17	17	7	2	1	13	5	3	12						
Sankt Blasien (I)																													
Hochschwarzwald	1008	9.7	0.0		22.0	26.	-1.4	3.	-3.5	4.	72	5.5	118	117	13	11	4	1	1	4	5	2	12						165
Kadolfzell	400	13.7	0.1		29.2	27.	-0.8	4.			73	5.4	94	127	16	13	4			3	4	15							
Isny	691	11.9	0.9		27.0	27.	-4.2	4.	-4.6	4.	76	5.6	219	139	12	15	7	2	1	3	5	3	13						182
Konstanz (Wewa)	443	13.8	0.6		28.0	26.	-0.2	4.	-2.2	4.	71	5.4	90	114	15	11	2			1	3	4	14						197
Wotzingen	383	13.5	0.7		28.6	26.	-0.6	4.	-1.6	4.	73	5.4	60	80	16	12	2			3	3	11							89
Schopfheim	400	12.6	-0.2		28.6	26.	-1.2	4.	-1.9	4.	77	5.7	132	139	16	13	5			6	7	4	16						194
Eriskirch-Wolfzinnen	408	14.1			28.5	27.	-1.7	4.	-5.2	4.	76	6.1	157	165	15	15	5			3	6	2	16						
Emmendingen	264	13.5			28.0	26.	-1.0	4.	-3.1	4.	78	5.6	83	117	14	12	3			3	6	2	13						
Waldnar	330	13.5	0.0		24.5	26.	-1.0	4.	-2.4	4.	77	5.3	84	106	16	12	3			3	3	11							
Jungbühl (Kühnoss)	728	10.6			24.5	26.	-3.8	4.			76	5.7	152	175	17	14	6	1		16	3	3	13						147
Rheinleiden	287	12.8	-0.2		30.0	26.	-0.9	4.	-1.9	4.	72	5.8	161	206	17	14	7			6	2	15							148
Bad Säckingen	355	13.1			28.2	26.	-0.6	4.			74	5.5	126	168	15	13	5			4	2	3	13						
Bayern																													
Ostheim-Rhon	315	14.2			29.1	26.	-0.9	4.	-2.5	4.	71	5.9	50	104	13	8	2			1	3								
Leinschütz-Wickendorf	560	12.2	1.0		26.6	27.	-4.0	4.	-6.6	4.	74	5.3	65	93	11	10	2			2	1								
Langeleiten																													
Hof Hofhensas (Wst)	567	12.0	1.5		26.5	27.	-2.9	4.	-5.6	4.	74	5.1	62	102	13	9	2			5	4	3	11						184
Calburg (Wst)	337	14.3	1.4		29.2	27.	-1.0	4.	-3.2	4.	66	5.2	68	106	14	8	4				6	3	12						87
Kronach	305	14.7	2.3		29.5	27.	-0.6	4.	-1.1	4.	65	5.6	55	87	13	8	2			1	3	2	13						216
Bad Kissingen (Wst)	262	14.3	1.2		29.2	27.	0.2	4.	-2.7	4.	68	5.3	75	144	15	10	1			2	4	3	13						92
Sch. Ort (I)	583	11.9	1.0		25.2	27.	-3.0	4.	-3.5	4.	74	4.2	73	118	8	8	2			3	3	3	4						175
Oelschütz	553	12.1	1.2		27.2	27.	-3.6	4.	-4.9	4.	74	4.8	77	91	13	11	2			1	3	1	7						
Kühl-Mün	110	14.6	0.5		29.0	26.	-2.9	4.	-1.2	4.	71	5.5	86	148	17	10	4				6	2	12						
Schwenfurt	240	14.8	1.3		29.7	27.	-1.1	4.	-2.2	4.	68	5.1	35	74	14	7	1			1	5	2	9						
Stemmlach b. Jöhrl-Mün	161	13.9	1.0		29.1	27.	-0.6	4.	-0.9	4.	75	5.2	89	178	16	14	2			4	4	2	11						
Fichtelberg-Ort.	705	11.3	0.6		25.7	27.	-2.5	4.	-3.1	4.	74	5.4	83	102	14	9	4	3		2	3	3	5						184
Bayreuth	330	13.6	1.2		28.6	27.	-0.6	4.	-0.8	4.	74	4.8	78	118	15	12	4			2	5	2	10						94
Bamberg (Wst)	239	14.7	1.5		29.1	27.	-1.3	4.	-0.1	4.	71	5.8	75	129	13	9	3			1	4	3	1						178
Trischenthal	515	12.6	0.8		26.5	27.	-2.8	4.	-4.0	4.	71	5.8	94	168	16	11	2			1	7	2	11						75
Wartburg (Wewa)	268	14.5	1.0		28.8	27.	-0.1	4.	-2.4	4.	68	5.2	94	168	16	11	2			1	7	2	11						
Calwenslein	450	13.0	1.2		28.0	27.	-2.0	4.	-3.0	4.	88	4.5	61	87	16	11	3			3	7	1	4						
Altenfurt	750	11.3	1.2		25.0	27.	-2.9	4.	-7.1	4.	76	5.4	85	91	12	11	3			2	4	1	12						
Mittenberg	127	14.0			28.8	27.	0.8	4.	-1.5	4.	75	5.6	124	214	16	12	6			2	4	1	13						187
Weiden-Opf (Wst)	438	13.3	1.0		27.6	27.	-2.0	4.	-4.1	4.	76	5.3	58	117	13	11	1			1	4	1	10						91
Erlangen	270	14.1	1.2		28.5	27.	-1.6	4.	-2.7	4.	70	5.1	87	136	15	10	2			1	4	1	9						
Neustadt/Ansb	333	13.8	1.0		28.1	27.	-1.5	4.	-1.9	4.	73	5.3	101	171	13	10	3			1	3	2	8						
Uffenheim	340	13.9	1.3		28.6	27.	-0.6	4.	-3.9	4.	68	5.1	76	133	14	10	3				6	3	10						

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GENERALLY BASED MOBILITY-TERRAIN DATA BASES(U)
SATTELLE-INSTITUT E U FRANKFURT AM MAIN (GERMANY F R)
P JESSL ET AL. MAR 86 BLEU-R-66.069-1 DAJA45-84-C-9839

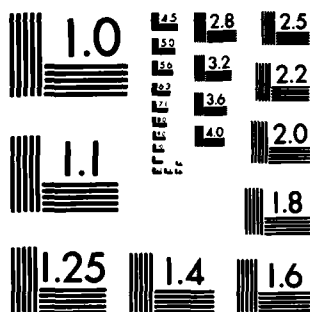
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Table 6 ctd. (air temperature in °C)

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Mai 1985

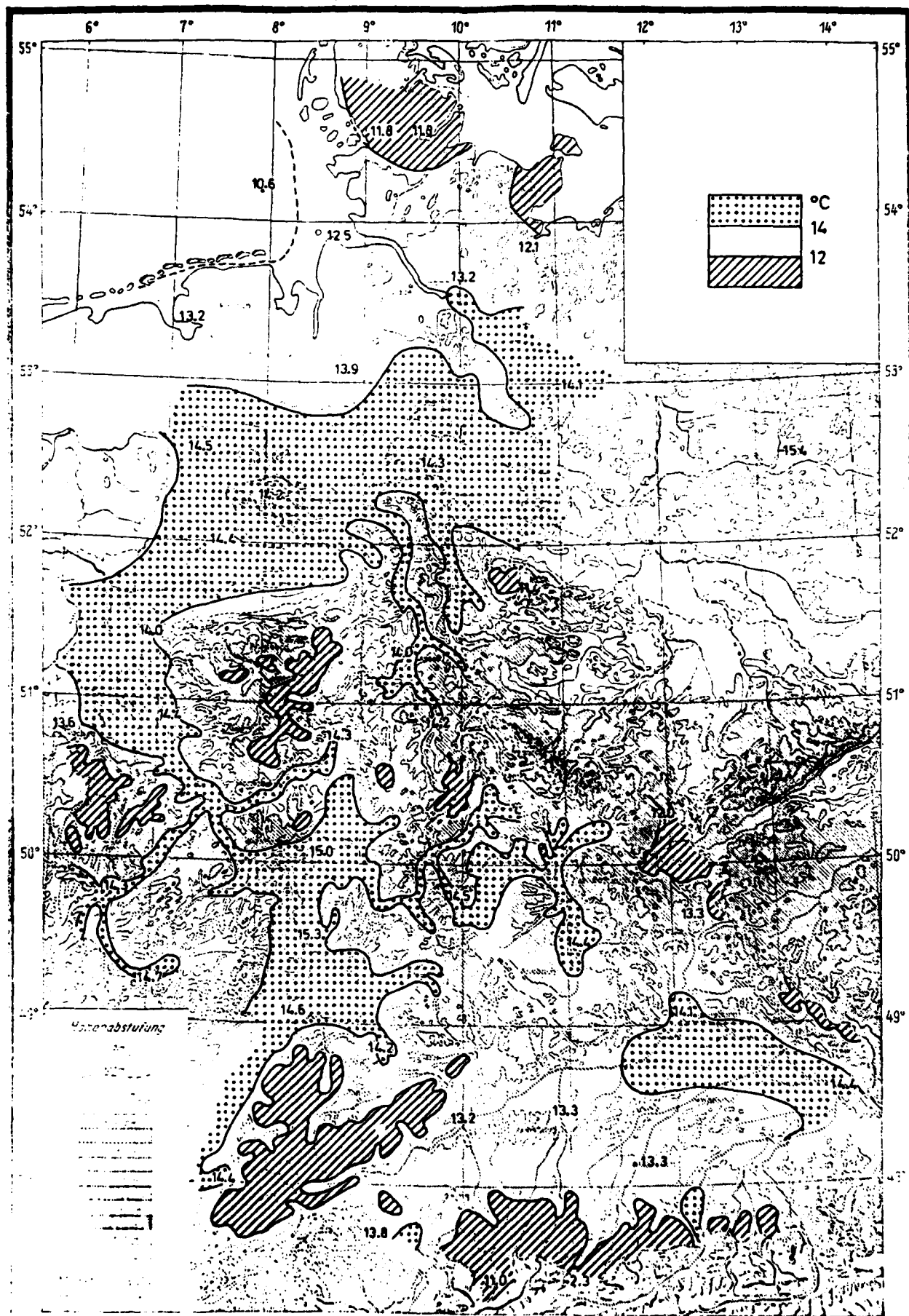


Table 6 ctd. (precipitation in mm)

Mai 1985

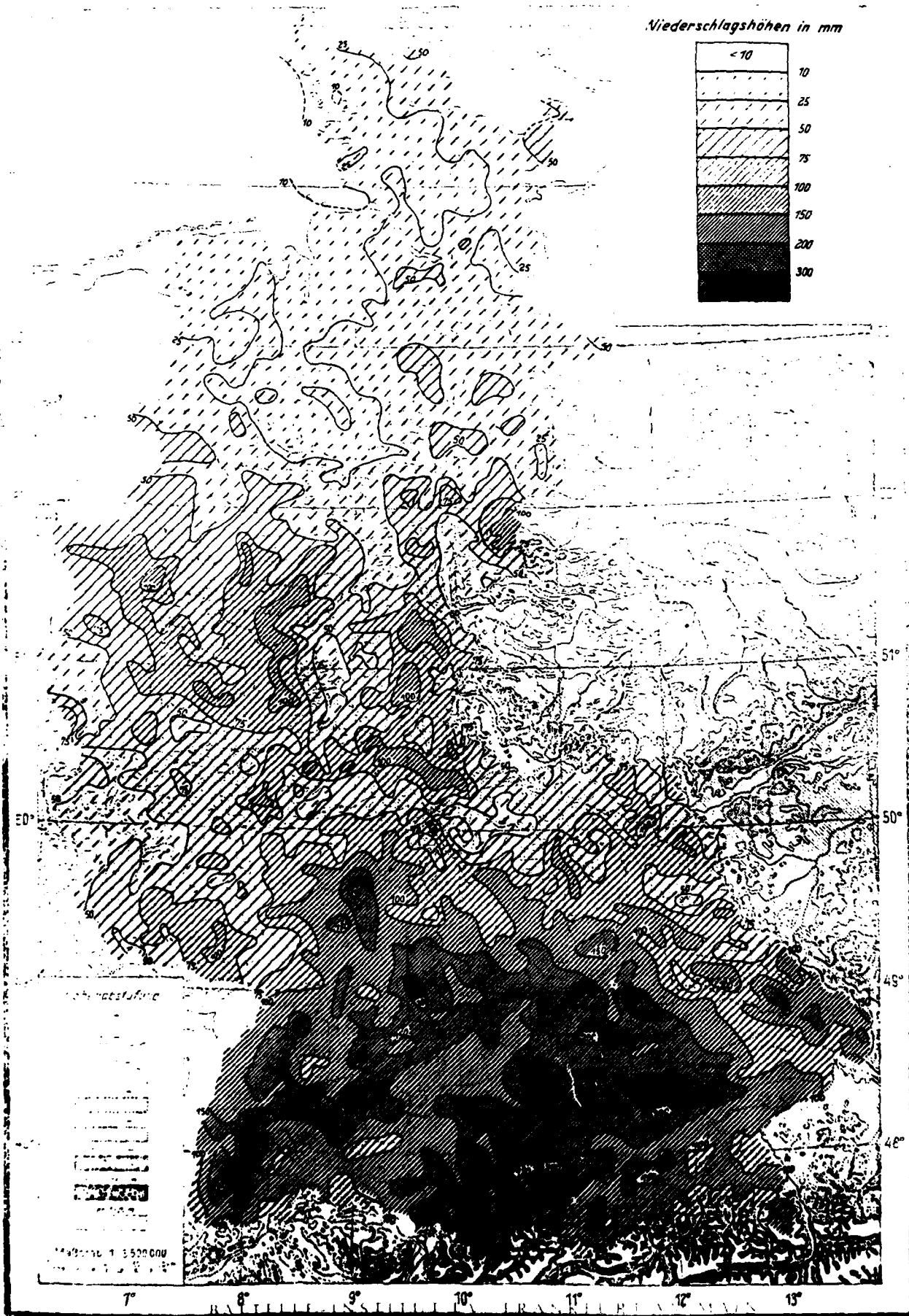


Table 6 ctd. (precipitation in % of 1931 - 1960 mean values) **Mai 1985**

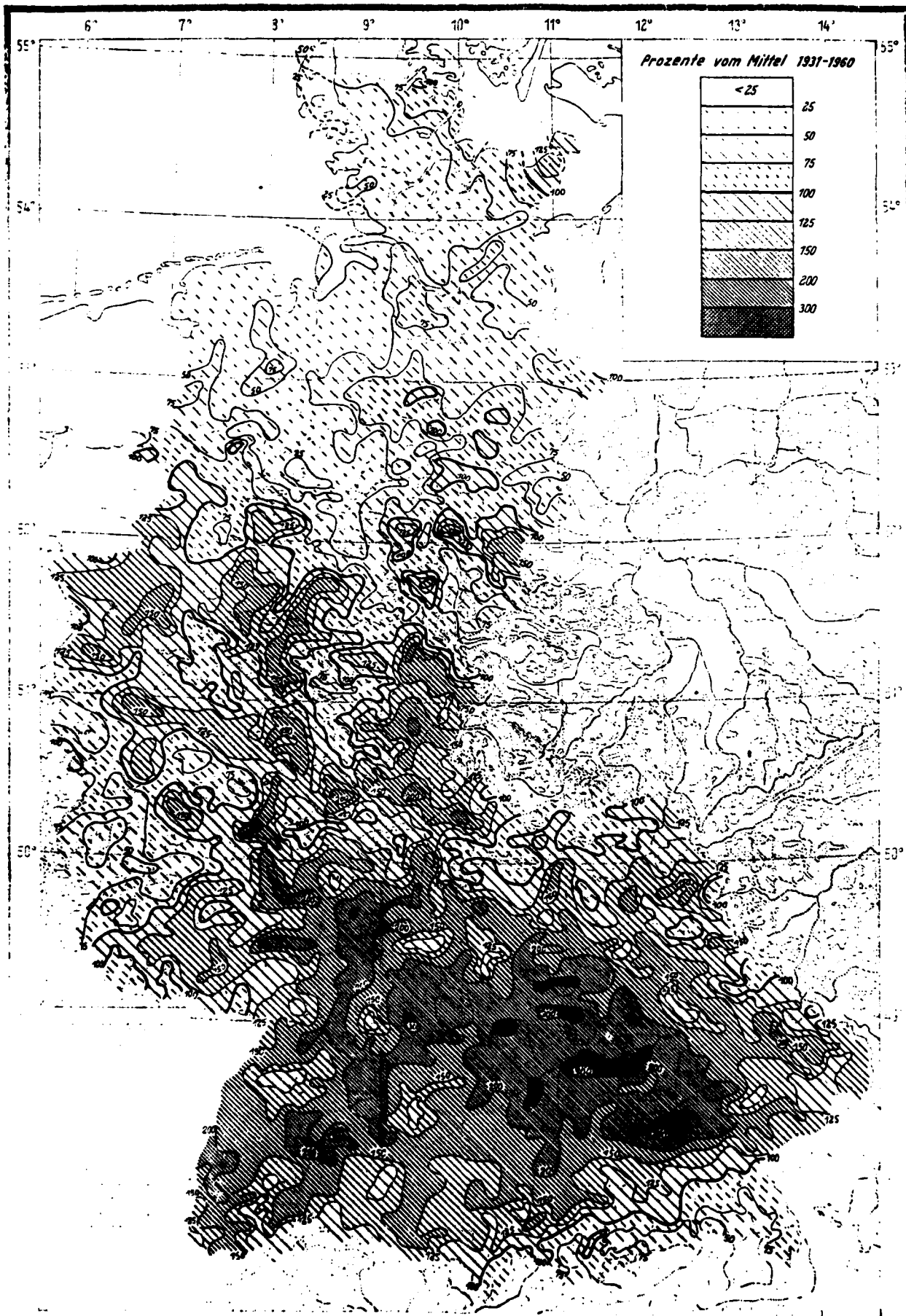


Table 6 ctd. (air temperature in % of 1931 - 1960 mean values)

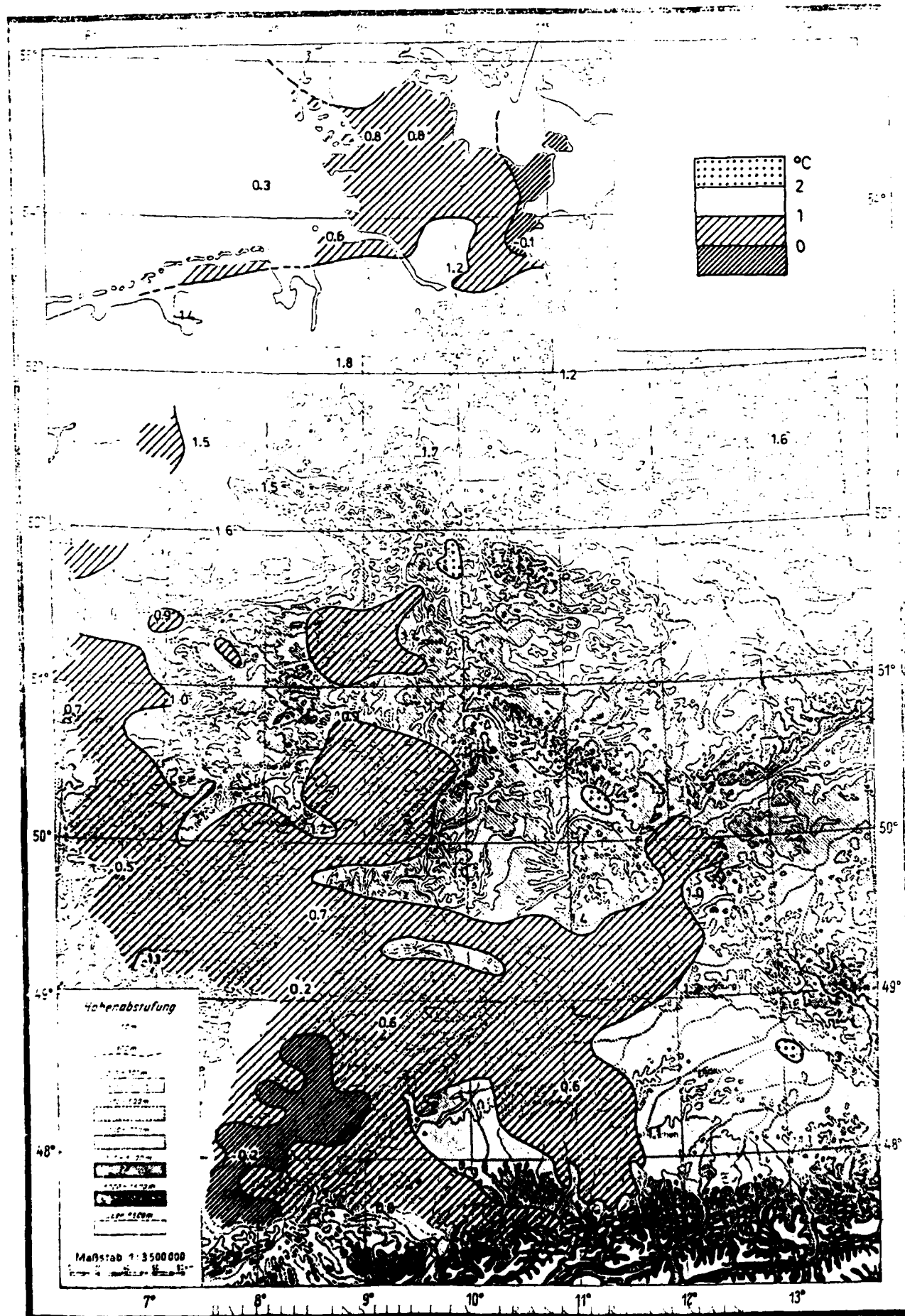


Table 7 Results of Soil Investigations for the Test Sites Visited

Site No.	Sampling Depth in	Specific Gravity g/cm ³	Density		Moisture Content %	Atterberg Limits			Organic Ingredients %	Soil Type USCS
			Bulk- t/m ³	Dry- t/m ³		Liquid Limit %	Plasticity Limit %	Plasticity %		
1	1-4	2,62	1,62	1,13	42,89	69,9	39,5	30,4	9,44	OH
2	1-4	2,68	1,52	1,23	23,80	39,2	22,5	16,7	4,30	CL
3	1-4	2,01	1,04	0,63	65,89		1)		9,60	SM
4	1-4	-	1,03	0,54	92,19		1)		26,12	Pt
5	1-3	2,65	1,59	1,30	22,63	30,9	23,9	7,0	3,08	ML
6/1	1-4	-	1,12	0,47	138,38		1)		29,66	Pt
6/2	7-10	-	1,26	0,44	184,67		1)		20,34	Pt
7	1-4	-	1,56	0,94	65,16		1)		15,95	Pt
8	1-4	-	0,98	0,32	201,57		1)		57,47	Pt
9	1-4	2,63	1,87	1,38	35,81	41,4	30,0	11,4	5,24	ML
10	1-3	2,67	1,68	1,02	64,20	75,9	43,1	32,8	13,83	OH
11	1-3	2,57	1,47	1,20	22,69	38,9	22,9	16,0	7,16	CL
12	1-4	2,63	1,76	1,17	50,00	73,3	42,7	30,6	6,02	OH
13/1	1-4	-	1,37	0,52	161,04		1)		18,84	Pt
13/2	6-9	-	1,54	0,78	96,40		1)		18,34	Pt
14	1-4	2,51	1,88	1,32	42,25	61,7	45,7	16,0	7,86	OH
15	1-4	2,57	1,54	1,23	24,93		1)		5,48	SP
16	1-4	-	1,59	1,02	56,18		1)		16,40	Pt
17	1-4	2,48	1,68	1,42	18,51		1)		5,21	SP
18	1-4	2,57	2,11	1,69	24,63	33,3	23,3	10,0	5,97	ML
19	1-4	-	1,13	0,23	391,59		1)		58,65	Pt
20	2-5	2,74	1,52	0,86	75,78		1)		8,86	SM
21	1-4	-	1,20	0,32	277,70		1)		43,94	Pt
22	0-4	2,57	1,56	1,07	45,71	78,9	38,0	40,9	8,02	CH
23	0-4	2,53	1,94	1,43	35,67		1)		5,28	SM
24	0-4	2,52	2,16	1,66	30,06		1)		3,27	SM
25/1	1-4	2,59	1,52	0,70	117,24	150,0	91,7	58,3	15,73	OH
25/2	6-9	2,67	1,81	1,20	51,28	83,8	45,1	38,7	8,42	OL
26	1-4	2,52	1,79	1,32	35,36	82,8	41,1	41,7	17,33	OL
27	1-4	2,39	1,45	0,67	117,58	136,5	70,8	65,7	21,23	OH
28/1	1-4	2,52	1,59	0,98	62,44	116,4	53,7	62,7	12,29	OH
28/2	6-9	2,60	1,74	1,15	51,10	83,2	37,2	46,0	9,88	CH
29	0-3	2,60	1,60	1,32	21,25	35,9	21,2	14,7	5,24	CL
30	1-4	2,56	1,64	1,17	40,76	70,4	48,5	21,9	11,38	OH
31	1-4	2,58	1,90	1,34	41,51	62,5	35,3	27,2	15,17	OH
32	1-4	2,51	1,82	1,09	67,23	85,2	60,6	24,6	17,07	OH
33	1-4	2,61	1,87	1,44	30,02	70,7	34,7	36,0	11,58	OH
34	1-4	2,54	1,33	0,84	58,19	111,2	55,6	55,6	19,43	OH
35	3-6	-	1,78	1,03	73,23		1)		10,57	Pt

1) Plasticity too low to determine the Atterberg limits

Table 8

Summary of the Test Site Data Obtained

SITE NO.	TEST NO.	QUAD SHEET	GRID COORD.	RATE in/s	AT PEAK		NORMAL STRESS psi	SAMPLE DEPTH in
					SHEAR STRESS psi	DISPL. in		
1	141	5916	6050/4170	.33	1.09	.47	.50	4
1	142	5916	6050/4170	.34	2.59	.38	.50	4
1	143	5916	6050/4170	.16	1.85	.19	.50	4
1	144	5916	6050/4170	1.34	2.66	.32	.50	4
1	145	5916	6050/4170	1.51	2.54	.95	.50	4
1	147	5916	6050/4170	.41	8.84	.86	5.60	4
1	148	5916	6050/4170	.46	9.92	.71	5.60	4
1	149	5916	6050/4170	1.35	10.12	.73	5.60	4
1	150	5916	6050/4170	1.36	10.51	1.02	5.60	4
1	151	5916	6050/4170	.44	13.44	.67	11.25	4
1	152	5916	6050/4170	.38	13.42	.47	11.25	4
1	153	5916	6050/4170	.50	12.53	1.11	11.25	4
1	154	5916	6050/4170	1.27	12.88	.63	11.25	4
1	155	5916	6050/4170	1.30	16.64	1.52	11.25	4
2	156	5916	6001/4565	.49	4.30	.56	.50	4
2	157	5916	6001/4565	.41	5.14	.32	.50	4
2	158	5916	6001/4565	1.28	6.81	.36	.50	4
2	159	5916	6001/4565	1.29	5.58	.36	.50	4
2	160	5916	6001/4565	1.35	9.12	.53	.50	4
2	162	5916	6001/4565	.49	12.70	.82	5.60	4
2	163	5916	6001/4565	1.24	11.94	.54	5.60	4
2	164	5916	6001/4565	1.24	12.05	1.08	5.60	4
2	165	5916	6001/4565	.56	12.23	.61	11.25	4
2	166	5916	6001/4565	.46	9.73	.60	11.25	4
2	167	5916	6001/4565	1.17	13.51	.70	11.25	4
2	168	5916	6001/4565	1.23	11.75	.69	11.25	4
2	169	5916	6001/4565	1.26	13.50	.79	11.25	4
3	170	5918	8340/4665	.39	3.31	.28	.50	4
3	174	5918	8340/4665	.32	3.31	.25	.50	4
3	175	5918	8340/4665	.39	2.56	.36	.50	4
3	176	5918	8340/4665	1.15	4.52	.28	.50	4
3	177	5918	8340/4665	.46	8.17	.47	5.60	4
3	178	5918	8340/4665	.45	6.96	.41	5.60	4
3	179	5918	8340/4665	.47	8.32	.41	5.60	4
3	180	5918	8340/4665	1.33	13.35	.51	5.60	4
3	181	5918	8340/4665	1.33	8.31	.41	5.60	4
3	182	5918	8340/4665	1.41	7.11	1.00	5.60	4
3	183	5918	8340/4665	1.37	7.87	.62	5.60	4
3	184	5918	8340/4665	.49	9.91	.53	11.25	4
3	185	5918	8340/4665	.41	13.92	.30	11.25	4
3	186	5918	8340/4665	.60	6.80	.44	11.25	4
3	187	5918	8340/4665	.66	7.32	.42	11.25	4
3	188	5918	8340/4665	1.13	6.80	.16	11.25	4
6	189	3528	0670/2725	.52	1.88	.82	.50	4
6	190	3528	0670/2725	.38	2.65	.57	.50	4
6	191	3528	0670/2725	1.08	2.82	.26	.50	4
6	192	3528	0670/2725	1.41	2.34	1.07	.50	4

Table 8

Summary of the Test Site Data Obtained

SITE NO.	TEST NO.	QUAD SHEET	GRID COORD.	RATE in/s	AT PEAK		NORMAL STRESS psi	SAMPLE DEPTH in
					SHEAR STRESS psi	DISPL. in		
6	193	3528	0670/2725	1.17	2.96	.44	.50	4
6	194	3528	0670/2725	.43	9.53	1.07	5.60	4
6	195	3528	0670/2725	.38	9.35	.68	5.60	4
6	196	3528	0670/2725	1.27	10.75	.81	5.60	4
6	197	3528	0670/2725	1.26	8.77	.61	5.60	4
6	198	3528	0670/2725	.34	11.84	.44	11.25	4
6	199	3528	0670/2725	.32	12.04	.52	11.25	4
6	200	3528	0670/2725	1.16	14.33	.49	11.25	4
6	201	3528	0670/2725	1.15	13.40	.61	11.25	4
7	216	3528	0600/2325	.59	3.41	.59	.50	4
7	217	3528	0600/2325	.41	4.33	.75	.50	4
7	218	3528	0600/2325	.64	2.43	1.04	.50	4
7	219	3528	0600/2325	.36	3.11	.45	.50	4
7	220	3528	0600/2325	1.24	5.51	.56	.50	4
7	221	3528	0600/2325	1.01	3.92	.34	.50	4
7	222	3528	0600/2325	.46	8.32	.47	5.60	4
7	223	3528	0600/2325	.40	5.72	.32	5.60	4
7	224	3528	0600/2325	.47	8.08	.44	5.60	4
7	225	3528	0600/2325	1.43	8.39	.52	5.60	4
7	226	3528	0600/2325	1.44	9.25	.62	5.60	4
7	227	3528	0600/2325	.32	8.64	.24	11.25	4
7	228	3528	0600/2325	.44	10.55	.47	11.25	4
7	229	3528	0600/2325	1.17	12.43	.53	11.25	4
7	230	3528	0600/2325	1.26	9.44	.42	11.25	4
8	231	3528	0500/2565	.32	3.20	.39	.50	4
8	232	3528	0500/2565	.42	3.42	.29	.50	4
8	233	3528	0500/2565	.51	2.62	.32	.50	4
8	234	3528	0500/2565	1.23	2.32	.37	.50	4
8	235	3528	0500/2565	1.29	3.19	.76	.50	4
8	236	3528	0500/2565	.56	8.23	.50	5.60	4
8	237	3528	0500/2565	.52	6.88	.47	5.60	4
8	238	3528	0500/2565	.55	7.14	.47	5.60	4
8	239	3528	0500/2565	1.13	8.38	.45	5.60	4
8	241	3528	0500/2565	1.20	8.19	.52	5.60	4
8	242	3528	0500/2565	1.18	6.78	.37	5.60	4
8	243	3528	0500/2565	.58	10.75	.54	11.25	4
8	244	3528	0500/2565	.57	10.00	.36	11.25	4
8	245	3528	0500/2565	.46	10.11	.36	11.25	4
8	246	3528	0500/2565	1.18	10.31	.46	11.25	4
8	247	3528	0500/2565	1.33	10.47	.43	11.25	4
9	248	3730	2720/8630	.42	3.29	.28	.50	4
9	249	3730	2720/8630	.51	2.94	.58	.50	4
9	250	3730	2720/8630	.52	3.27	.89	.50	4
9	251	3730	2720/8630	1.26	2.44	.46	.50	4
9	252	3730	2720/8630	1.37	3.05	.64	.50	4
9	253	3730	2720/8630	.52	6.19	.51	5.60	4
9	254	3730	2720/8630	.57	5.71	.52	5.60	4

Table 8

Summary of the Test Site Data Obtained

SITE NO.	TEST NO.	QUAD SHEET	GRID COORD.	RATE in/s	AT PEAK		NORMAL STRESS psi	SAMPLE DEPTH in
					SHEAR STRESS psi	DISPL. in		
9	255	3730	2720/8630	.45	5.90	.45	5.60	4
9	256	3730	2720/8630	1.38	9.41	.75	5.60	4
9	257	3730	2720/8630	1.33	8.24	.46	5.60	4
9	258	3730	2720/8630	1.41	7.78	.96	5.60	4
9	259	3730	2720/8630	.54	9.78	.57	11.25	4
9	260	3730	2720/8630	.56	8.52	.45	11.25	4
9	261	3730	2720/8630	.58	6.61	.60	11.25	4
9	262	3730	2720/8630	1.37	11.01	.69	11.25	4
9	263	3730	2720/8630	1.38	9.34	.49	11.25	4
10	264	3730	3050/8775	.42	1.36	.29	.50	4
10	265	3730	3050/8775	.56	1.54	.71	.50	4
10	267	3730	3050/8775	1.37	2.84	.51	.50	4
10	268	3730	3050/8775	.59	3.14	.80	5.60	4
10	269	3730	3050/8775	.63	2.47	.66	5.60	4
10	270	3730	3050/8775	1.49	3.24	1.04	5.60	4
10	271	3730	3050/8775	1.44	3.02	.60	5.60	4
10	272	3730	3050/8775	.59	3.81	.68	11.25	4
10	273	3730	3050/8775	.52	3.36	1.04	11.25	4
10	274	3730	3050/8775	1.44	3.73	.51	11.25	4
10	275	3730	3050/8775	1.45	3.46	.83	11.25	4
10	276	3730	3050/8775	1.27	4.42	.58	11.25	4
11	277	4724	6630/7525	.43	2.02	.45	.50	4
11	278	4724	6630/7525	.37	3.13	.39	.50	4
11	279	4724	6630/7525	.49	5.96	.51	.50	4
11	280	4724	6630/7525	.53	8.34	.62	.50	4
11	281	4724	6630/7525	1.31	5.27	.59	.50	4
11	282	4724	6630/7525	1.26	9.62	.58	.50	4
11	283	4724	6630/7525	1.11	11.19	.51	.50	4
11	284	4724	6630/7525	.41	12.66	.31	5.60	4
11	285	4724	6630/7525	.43	13.95	.63	5.60	4
11	286	4724	6630/7525	1.31	14.02	.94	5.60	4
11	287	4724	6630/7525	1.31	14.70	1.00	5.60	4
11	288	4724	6630/7525	.57	14.92	.84	11.25	4
11	289	4724	6630/7525	.59	16.07	.87	11.25	4
11	290	4724	6630/7525	1.27	16.59	.72	11.25	4
11	291	4724	6630/7525	1.24	18.43	.66	11.25	4
12	292	4924	6425/7075	.60	6.36	.43	.50	4
12	293	4924	6425/7075	.43	8.17	.59	.50	4
12	294	4924	6425/7075	1.36	8.62	.73	.50	4
12	295	4924	6425/7075	1.38	9.99	.71	.50	4
12	296	4924	6425/7075	.45	15.58	.95	5.60	4
12	297	4924	6425/7075	.44	13.76	.65	5.60	4
12	298	4924	6425/7075	1.26	15.49	.96	5.60	4
12	299	4924	6425/7075	1.12	15.00	.96	5.60	4
12	300	4924	6425/7075	.51	14.96	.58	11.25	4
12	301	4924	6425/7075	.42	15.24	.68	11.25	4
12	302	4924	6425/7075	.90	18.06	.81	11.25	4

Table 8

Summary of the Test Site Data Obtained

SITE NO.	TEST NO.	QUAD SHEET	GRID COORD.	RATE in/s	AT PEAK		NORMAL STRESS psi	SAMPLE DEPTH in
					SHEAR STRESS psi	DISPL. in		
12	303	4924	6425/7075	.81	15.16	.61	11.25	4
13	304	3122	3560/6820	.57	5.08	1.06	.50	4
13	305	3122	3560/6820	.51	5.58	1.04	.50	4
13	306	3122	3560/6820	.53	4.87	1.61	.50	4
13	307	3122	3560/6820	1.16	4.19	1.06	.50	4
13	308	3122	3560/6820	1.36	3.43	1.03	.50	4
13	309	3122	3560/6820	.54	8.68	1.08	5.60	4
13	310	3122	3560/6820	.64	15.55	2.37	5.60	4
13	311	3122	3560/6820	.62	8.83	1.45	5.60	4
13	314	3122	3560/6820	.55	9.87	.97	11.25	4
13	315	3122	3560/6820	.62	7.97	.63	11.25	4
13	316	3122	3560/6820	1.31	9.30	.94	11.25	4
13	317	3122	3560/6820	1.22	9.93	.91	11.25	4
14	331	1322	3480/6285	.56	4.08	.60	.50	4
14	332	1322	3480/6285	.55	4.12	.71	.50	4
14	333	1322	3480/6285	1.51	3.05	.92	.50	4
14	334	1322	3480/6285	.79	3.98	.35	.50	4
14	335	1322	3480/6285	1.16	3.90	.98	.50	4
14	336	1322	3480/6285	1.27	5.41	.60	.50	4
14	337	1322	3480/6285	.69	5.33	.74	5.60	4
14	338	1322	3480/6285	.59	7.27	.44	5.60	4
14	339	1322	3480/6285	.57	9.90	.68	5.60	4
14	340	1322	3480/6285	.34	9.99	.54	5.60	4
14	341	1322	3480/6285	1.35	11.75	.68	5.60	4
14	342	1322	3480/6285	1.42	12.60	.83	5.60	4
14	343	1322	3480/6285	1.40	10.31	.73	5.60	4
14	344	1322	3480/6285	.45	15.65	.50	11.25	4
14	345	1322	3480/6285	.51	11.07	.59	11.25	4
14	346	1322	3480/6285	.59	13.41	.57	11.25	4
14	347	1322	3480/6285	1.33	15.32	.60	11.25	4
14	348	1322	3480/6285	1.31	18.32	.69	11.25	4
14	349	1322	3480/6285	1.35	15.42	.63	11.25	4
18	350	1924	6140/0185	.55	2.87	.61	.50	4
18	351	1924	6140/0185	.58	2.63	.79	.50	4
18	352	1924	6140/0185	.55	2.54	.37	.50	4
18	353	1924	6140/0185	1.50	3.77	.80	.50	4
18	354	1924	6140/0185	1.25	5.03	.53	.50	4
18	355	1924	6140/0185	1.08	4.95	.60	.50	4
18	356	1924	6140/0185	.53	5.79	.48	5.60	4
18	357	1924	6140/0185	.47	6.88	1.04	5.60	4
18	358	1924	6140/0185	1.47	6.36	.75	5.60	4
18	359	1924	6140/0185	1.35	4.74	1.74	5.60	4
18	360	1924	6140/0185	1.36	8.23	.66	5.60	4
18	361	1924	6140/0185	.40	10.89	.56	11.25	4
18	362	1924	6140/0185	.59	7.97	.82	11.25	4
18	363	1924	6140/0185	.51	7.23	.55	11.25	4
18	364	1924	6140/0185	1.46	5.80	.79	11.25	4

Table 8 Summary of the Test Site Data Obtained

SITE NO.	TEST NO.	QUAD SHEET	GRID COORD.	RATE in/s	AT PEAK		NORMAL STRESS psi	SAMPLE DEPTH in
					SHEAR STRESS psi	DISPL. in		
18	365	1924	6140/0185	1.27	9.15	1.05	11.25	4
18	366	1924	6140/0185	1.44	8.07	1.16	11.25	4
19	367	1924	6140/0280	.59	2.81	.86	.50	4
19	368	1924	6140/0280	.62	4.16	.86	.50	4
19	369	1924	6140/0280	.63	2.75	.65	.50	4
19	370	1924	6140/0280	1.37	3.08	1.33	.50	4
19	371	1924	6140/0280	1.38	3.28	1.82	.50	4
19	373	1924	6140/0280	.61	4.86	.55	5.60	4
19	374	1924	6140/0280	.65	5.78	.96	5.60	4
19	375	1924	6140/0280	1.26	5.00	1.08	5.60	4
19	376	1924	6140/0280	1.43	4.69	.50	5.60	4
19	377	1924	6140/0280	.54	6.07	.68	11.25	4
19	378	1924	6140/0280	.58	6.68	.73	11.25	4
19	379	1924	6140/0280	1.22	7.32	.56	11.25	4
19	380	1924	6140/0280	1.46	5.39	.61	11.25	4
20	381	2724	5240/0345	.58	1.38	.92	.50	5
20	382	2724	5240/0345	.50	1.54	.52	.50	5
20	383	2724	5240/0345	1.05	1.85	.58	.50	5
20	384	2724	5240/0345	1.24	2.08	.58	.50	5
20	385	2724	5240/0345	.53	2.81	.46	5.60	5
20	386	2724	5240/0345	1.30	3.48	.82	5.60	5
20	387	2724	5240/0345	1.46	3.76	1.31	5.60	5
20	388	2724	5240/0345	.37	4.08	.23	11.25	5
20	389	2724	5240/0345	.49	2.93	.67	11.25	5
20	390	2724	5240/0345	1.30	3.64	.63	11.25	5
20	391	2724	5240/0345	1.46	6.11	.96	11.25	5
20	392	2724	5240/0345	1.29	3.35	.28	11.25	5
21	393	2724	5375/9960	.47	1.90	1.15	.50	4
21	394	2724	5375/9960	.60	2.00	.73	.50	4
21	395	2724	5375/9960	.57	2.59	1.18	.50	4
21	396	2724	5375/9960	1.56	2.25	1.64	.50	4
21	397	2724	5375/9960	1.31	2.39	.70	.50	4
21	398	2724	5375/9960	.65	3.67	.75	5.60	4
21	399	2724	5375/9960	.61	4.45	.94	5.60	4
21	400	2724	5375/9960	1.41	4.15	.56	5.60	4
21	401	2724	5375/9960	1.50	6.00	1.63	5.60	4
21	402	2724	5375/9960	.60	6.35	.99	11.25	4
21	403	2724	5375/9960	.60	6.09	.74	11.25	4
21	404	2724	5375/9960	1.41	7.77	1.23	11.25	4
21	405	2724	5375/9960	1.35	8.61	.97	11.25	4
23	406	3908	8200/6815	.56	2.49	.70	.50	4
23	407	3908	8200/6815	.53	1.98	.62	.50	4
23	408	3908	8200/6815	.33	2.83	.18	.50	4
23	409	3908	8200/6815	1.26	3.06	.37	.50	4
23	410	3908	8200/6815	1.30	2.47	.74	.50	4
23	411	3908	8200/6815	1.27	2.09	.64	.50	4
23	414	3908	8200/6815	.58	7.80	.60	5.60	4

Table 8

Summary of the Test Site Data Obtained

SITE NO.	TEST NO.	QUAD SHEET	GRID COORD.	RATE in/s	AT PEAK		NORMAL STRESS psi	SAMPLE DEPTH in
					SHEAR STRESS psi	DISPL. in		
23	415	3908	8200/6815	1.32	5.77	.45	5.60	4
23	416	3908	8200/6815	1.09	5.41	.34	5.60	4
23	417	3908	8200/6815	.56	9.14	.40	11.25	4
23	418	3908	8200/6815	.71	8.46	.45	11.25	4
23	419	3908	8200/6815	1.10	8.83	.33	11.25	4
23	420	3908	8200/6815	1.35	8.55	.42	11.25	4
23	421	3908	8200/6815	1.39	9.52	.44	11.25	4
25	422	5734	6810/7780	.63	1.80	.68	.50	4
25	423	5734	6810/7780	.67	2.62	1.34	.50	4
25	424	5734	6810/7780	.75	1.33	1.24	.50	4
25	425	5734	6810/7780	1.35	2.10	1.09	.50	4
25	426	5734	6810/7780	1.63	1.91	1.49	.50	4
25	427	5734	6810/7780	1.58	1.61	.89	.50	4
25	428	5734	6810/7780	.65	2.96	.97	5.60	4
25	429	5734	6810/7780	.76	3.22	1.28	5.60	4
25	430	5734	6810/7780	.82	1.67	.38	5.60	4
25	431	5734	6810/7780	1.25	2.26	.55	5.60	4
25	432	5734	6810/7780	.59	4.07	1.04	11.25	4
25	433	5734	6810/7780	.71	2.68	.87	11.25	4
25	434	5734	6810/7780	1.26	2.54	.13	11.25	4
25	435	5734	6810/7780	1.50	3.55	.81	11.25	4
27	442	5934	8255/5535	.59	4.95	1.77	.50	4
27	444	5934	8255/5535	.58	4.40	1.49	.50	4
27	445	5934	8255/5535	1.18	4.15	.41	.50	4
27	446	5934	8255/5535	1.48	4.37	.79	.50	4
27	447	5934	8255/5535	.59	8.52	1.19	5.60	4
27	448	5934	8255/5535	.60	7.86	1.00	5.60	4
27	449	5934	8255/5535	1.24	9.35	.79	5.60	4
27	450	5934	8255/5535	1.25	8.07	.94	5.60	4
27	451	5934	8255/5535	.65	9.64	.68	11.25	4
27	452	5934	8255/5535	.65	9.50	1.36	11.25	4
27	453	5934	8255/5535	1.30	13.46	1.14	11.25	4
27	454	5934	8255/5535	1.42	9.97	1.00	11.25	4
27	455	5934	8255/5535	1.39	10.85	.98	11.25	4
28	457	6334	3535/1800	.48	11.11	.89	.50	5
28	458	6334	3535/1800	.55	9.01	.67	.50	5
28	459	6334	3535/1800	1.46	12.03	.67	.50	5
28	460	6334	3535/1800	1.37	10.49	.98	.50	5
28	461	6334	3535/1800	.60	15.30	.82	5.60	5
28	462	6334	3535/1800	.57	13.60	.89	5.60	5
28	463	6334	3535/1800	1.26	15.64	.66	5.60	5
28	464	6334	3535/1800	1.44	12.67	.69	5.60	5
28	465	6334	3535/1800	.52	18.08	.52	11.25	5
28	466	6334	3535/1800	.47	13.71	.63	11.25	5
28	467	6334	3535/1800	.56	13.60	.61	11.25	5
28	468	6334	3535/1800	1.15	22.11	1.18	11.25	5
28	469	6334	3535/1800	1.23	15.94	.65	11.25	5

Table 8

Summary of the Test Site Data Obtained

SITE NO.	TEST NO.	QUAD SHEET	GRID COORD.	RATE in/s	AT PEAK		NORMAL STRESS psi	SAMPLE DEPTH in
					SHEAR STRESS psi	DISPL. in		
28	470	6334	3535/1800	1.38	16.95	.83	11.25	5
31	474	7738	8480/4710	.58	2.45	1.17	.50	4
31	475	7738	8480/4710	.59	4.85	.70	.50	4
31	478	7738	8480/4710	1.40	4.67	.57	.50	4
31	479	7738	8480/4710	1.54	2.16	.83	.50	4
31	480	7738	8480/4710	.67	11.87	.68	5.60	4
31	481	7738	8480/4710	.68	11.90	1.58	5.60	4
31	482	7738	8480/4710	1.55	7.68	1.02	5.60	4
31	483	7738	8480/4710	1.42	4.86	1.61	5.60	4
31	484	7738	8480/4710	1.54	9.57	1.64	5.60	4
31	485	7738	8480/4710	.57	6.69	.90	11.25	4
31	486	7738	8480/4710	.59	9.29	1.67	11.25	4
31	487	7738	8480/4710	1.48	5.96	.78	11.25	4
31	488	7738	8480/4710	1.53	7.23	1.99	11.25	4
34	489	8118	8045/9530	.52	4.72	.39	.50	4
34	490	8118	8045/9530	.36	3.61	.19	.50	4
34	491	8118	8045/9530	1.28	5.48	.39	.50	4
34	492	8118	8045/9530	1.20	6.96	.45	.50	4
34	493	8118	8045/9530	.67	10.96	1.18	5.60	4
34	494	8118	8045/9530	.57	11.48	1.53	5.60	4
34	495	8118	8045/9530	1.23	13.79	1.12	5.60	4
34	496	8118	8045/9530	1.23	12.18	.62	5.60	4
34	497	8118	8045/9530	.59	12.81	1.05	11.25	4
34	498	8118	8045/9530	.60	12.72	.64	11.25	4
34	500	8118	8045/9530	1.40	15.95	1.01	11.25	4
35	501	6510	8480/7100	.52	4.43	.44	.50	6
35	502	6510	8480/7100	.51	3.36	.42	.50	6
35	503	6510	8480/7100	1.48	5.04	.66	.50	6
35	504	6510	8480/7100	1.49	3.81	.58	.50	4
35	505	6510	8480/7100	1.53	3.42	.68	.50	6
35	506	6510	8480/7100	.66	6.00	.73	5.60	6
35	507	6510	8480/7100	.57	6.36	.76	5.60	6
35	508	6510	8480/7100	1.44	4.91	.42	5.60	6
35	509	6510	8480/7100	1.53	3.75	1.08	5.60	6
35	510	6510	8480/7100	1.44	8.34	.80	5.60	6
35	511	6510	8480/7100	1.40	7.25	.44	5.60	6
35	512	6510	8480/7100	.60	10.16	.53	11.25	6
35	513	6510	8480/7100	.48	4.75	.26	11.25	6
35	514	6510	8480/7100	.66	5.96	.77	11.25	6
35	515	6510	8480/7100	1.51	5.04	.88	11.25	6

Table 9 Mean Values for the Correlation Coefficient r_i

	Soil Type				Plasticity		Moisture Content		Organic Ingredients	
	CC, ML, SM, OH, Pt		CL, ML, OH		0 - 100%					
	RCI	CI	RCI	CI	RCI	CI	RCI	CI	RCI	CI
0.5 psi	.455 ^{*)}	.487 ^{*)}	.509/.379	.504/.451	.581	.455	.729	.701	.441	.570
5.6 psi	.546	.544	.899/.683	.882/.455	.841	.843 ^{*)}	.766	.663	.702	.511
11.25	.481	.528	.905/.685	.896/.528	.836	.870	.642	.721 ^{*)}	.690	.541

*) Neg.Gradient
for CL, ML
Tests neglected

*) Neg.Gradient *) without Pt-Soils
for > 50%
Tests neglected

r_i	Correlation Quality
0.6 - 0.8	high accuracy
0.8 - 1	extremely high accuracy

Table 10 Comparison of Predicted and Measured Cone-Index Values

Site No.	Soil Type	Density pci	Cohesion psi	Friction angle deg	Mean Values				Cone-Index		
					Initial Modulus G the applied stresses (psi)	(psi/in.) for the average out of 5.6 and 11.25	depth = 4"	3-5" 1)			
								predic- ted	measur- ed		
USCS					0.5	5.6	11.25				
1	OH	.0585	1	18	140	500	480	490	71	64	65
2	CL	.0549	4.3	6	220	310	580	440	77	72	72
3	SM	.0376	3	8	180	320	450	380	65	66	64
7	Pt	.0564	3	12	150	410	440	420	90	58	58
9	ML	.0676	2.1	7	110	350	520	430	47	43	41
10	OH	.0607	1.5	12	100	80	220	150	42	44	40
11	CL	.0531	6	8	200	700	500	600	123	112	110
12	OH	.0636	7	0	150	290	520	400	74	96	96
14	OH	.0679	3	18	140	270	440	360	129	77	71
18	ML	.0760	2.8	7	170	240	260	250	53	49	47
20	SM	.0549	1.5	5	120	150	350	250	27	28	22
23	SM	.070	2	18	240	420	590	500	111 ²⁾	17	20
25/1	OH	.0549	1.7	12	70	80	190	140	45	67	68
25/2	OL	.0654	6	0	150	120	200	160	57	107 ⁵⁾	107 ⁵⁾
27	OH	.0524	4	7	190	700	420	560	82	90	88
28/1	OH	.0574	9	0	330	940	990	970	102	78 ³⁾	80 ³⁾
28/2	CH	.0629	3	0	100	300	700	500	36	110 ³⁾	101 ³⁾
34	OH	.0481	4	0	350	310	730	520	47	53	53
35	Pt	.0643	4	5	200	240	260	250	61	61 ⁴⁾	63 ⁴⁾

- 1) for comparison purposes a profile value
btw. 3-5" was recorded here
2) deviation needs to be investigated further
3) sample depth 5"; 4-6"
4) " " 6"; 5-9"
5) " " 9"; 6-12"

DATE
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0-8